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JULY 5, 1899.

Vol. 44, No. 1.

NORTH CAROLINA Medical Journal.

Published Semi-Monthly at \$2.00 per Annum.

Robert L. Gibbon, M. D.,

Robert D. Jewett, M. D.,

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Editors and Proprietors.

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NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, JULY 5, 1899.

No. 1

Original Communications.

Progress in Serum Therapy.*

By CHAS. S. MANGUM, A. B., M. D.

Prof. of Physiology and Materia Medica University of North Carolina.

SINCE bacteriology became a science the most earnest efforts have been put forth by eminent medical men to isolate for every infectious disease some specific micro-organism; thus leading to a clearer understanding of many phenomena and a more rational treatment in numerous cases. To what extent these efforts have succeeded is abundantly shown by the marvelous growth and development of this comparatively recent science. Year by year new and important discoveries augment the invaluable fund of knowledge which has already been added to the literature of medicine, until we have now reached a point where it is fair to concede that the present generation will probably see every dreaded infectious disease accurately classified according to the micro-organism to which it owes its fatality. Parallel with this search for specific etiological factors there has been inaugurated during recent years in the physiological laboratories most comprehensive researches into the vast new fields of therapeutics opened by the better knowledge of the diversified activities and characteristics of bacteria. With the knowledge of toxins and toxalbumens came first the supposition and later the proof of the presence of the so called anti-toxins, powerful immunizing principles, of unknown chemical composition, but undoubtedly possessing the power either to destroy the micro-organisms themselves or neutralize and render harmless the toxins elaborated by them. The profession is more or less familiar with the surprisingly successful results obtained by serum therapy, which though still in its infancy, has already been conceded to be one of the greatest therapeutic discoveries of the century, giving promise of new life to thousands. Launched from the laboratories in the early eighties it at first met with most discouraging results, and for years was under a cloud of disapproval, and this cloud has not yet been wholly removed.

*Read before the North Carolina Medical Society, Asheville meeting, 1899.

But its advocates persevered, and in 1894, with the introduction of Behring's anti-diphtheritic serum, it began a career which has lifted it steadily into favor, until now the beneficent nature of the treatment has been established, at *least* in part, beyond all doubt or question.

It is readily apparent to one watching the progress of the year in the treatment of diseased conditions, that the profession, whether consciously or unconsciously, is basing its principal hopes of material advancement in therapeutics upon the experiments now being made with different anti-toxic serums. So great is the interest aroused in these new remedies that a report of progress in therapeutics and materia medica practically resolves itself into a report of new serums of real or imaginary worth. It is evident that the tendency of the present time is to depreciate to a great extent those remedial measures by means of which we have been wont heretofore to strengthen and aid the natural functions, and hunt for a curative and immunizing serum for every poison that threatens the life of man. As is always the case with new theories, the claims of serum therapy will doubtless be pushed by enthusiasts to an almost ridiculous extreme. Then the pendulum will swing back and anti-toxins will take their place among other remedies upon our lists according to their proved efficiency. At this time the data are still too incomplete for one to gauge the future scope of this new method of treating infectious diseases, but encouraging progress has been made and for so short a time the results have been little short of marvelous. Whether serum therapy will broaden out and develop as rapidly as did the science with which it is so closely allied, or whether it will prove to be in a large measure a popular fad and of only a sadly limited sphere of usefulness, the near future will disclose, but the present gives promise of a future which will practically revolutionize our methods of treating all those diseases whose symptoms are due to the presence in the body of poisons of bacteriological origin.

To quote an eminent authority—"Serum therapy has merely entered the first stage of its development, and already the results are of much value. The mortality of diphtheria has been reduced from 40 to 8 per cent.; the mortality of hydrophobia has shrunk at least from 16 to 1 per cent.; the prognosis of tetanus has been deprived of much of its gloomy forebodings; the cure of pneumonia, of tubercle, of erysipelas, and of septicæmia, is seemingly on the eve of being realized; a complete demonstration has been obtained of the power of antivenins to prevent the toxic and lethal effects of venoms; and the experimental data are surely being accumulated with a view to the discovery of antitoxic serums for the cure of yellow fever, the bubonic plague, Asiatic cholera, typhoid fever, cerebro-spinal meningitis, and even of leprosy and syphilis." The antitoxic treatment of diphtheria has made the most pronounced progress towards permanent establishment, being now almost universally accepted by the medical world. The experience of the past year has served to place this treatment in a position practically unassailable. The literature on this subject has grown to be almost voluminous, and statistics without end have been brought forward, showing such an enormous

decrease in the rate of mortality under the new treatment, that by many it would be considered a crime for any intelligent physician to refuse to employ this means of succor when it is so readily within his reach. Having accepted this serum as a remedial measure, it is now the aim of the profession to improve it and obviate any of the disadvantages which may attend its use. The resulting joint pains and swelling, and the cutaneous eruptions have been shown to be due to the use of an heterogeneous serum and not to the antitoxin as at first supposed. It is proposed to avoid these unpleasant effects by the use of highly concentrated serums, where the number of antitoxic units to each cubic centimeter of serum is very large, causing the volume of serum necessary to a dose to be small; and by thoroughly filtering this serum through an extremely fine filter, thus getting rid of all extraneous substances. It has been clearly demonstrated that the most useful sphere of diphtheria antitoxin is to be found in the realm of preventive medicine, as a prophylactic and immunizing agent. In close communities, as asylums, hospitals, schools, etc., where the gravest danger is to be feared in the development of secondary cases, the results have been most satisfactory, the disease, in many instances reported, having been effectually stamped out before it could gain a foothold. This in itself may be considered a great triumph. To obtain the best results from this serum as a curative measure it must be administered early in the course of the disease, before the ravages of the poison have become too great; the initial dose must be large, in some cases even amounting to as much as 3500 or 4000 units; the dose to children should be relatively much greater than that administered to adults, because the most virulent cases occur among children; and finally none of the usual precautionary measures should be neglected as aids to the treatment, simply on the ground that a specific should be expected to accomplish all things. The opportunities for testing the value of tetanus antitoxin have been far less numerous than in the case of diphtheria, because of the rare occurrence of this disease. The statistics are as yet wholly inadequate and insufficient in total number, and do not admit of a positive and definite report, though the mortality of tetanus has undoubtedly been reduced to a marked degree since the introduction of the antitoxic treatment. The effects of the serum are immediate in those cases where it is employed early, an amelioration of all the symptoms being at once apparent. It is claimed that when injected subcutaneously it only acts on the bacilli and toxins actually present in the blood, and does not readily come in contact with the toxins in the nervous system. Hence the necessity for a larger dose than that now given, and an earlier administration of it, so that the poison may be met in the blood current and conquered before it eludes the pursuing antitoxin.

As the lethal effects of this bacillus are chiefly exerted upon the nerve elements, some of the most enthusiastic advocates of the treatment have scorned all obstacles and injected the antitoxin directly into the brain substance itself. They report most beneficent results, but to the general practitioner the intra-cerebral injection of any serum, however potent, still savors

highly of fanaticism, and the statistics must necessarily be both more numerous and convincing than they now are, ere he may be expected to accept this procedure as altogether the proper thing to do.

To a much less degree than the two preceding, though steadily, Marmorek's antistreptococcus serum has gained favor during the past twelve months. As a remedy against erysipelas and septicæmia it has without question done much good, and has yielded most favorable results in many cases, though its action seems to be most unfortunately limited to strictly pure streptococcus infections; and since we do not possess the privilege of selecting the exact infection we would prefer in any given case but must accept mixed infections when they come, this limited action becomes a very serious stumbling block to the successful advancement of this new remedy. The serum is still unstable and unreliable, as well as often impure. Hence it must be handled with care, else it might prove a two-edged weapon and cause a double infection where immunity was sought.

It is still too soon to pronounce authoritatively upon the value of streptococcus serums, but their use has been so productive of successively better results, that it is well to maintain an optimistic view, until experiments have brought out more satisfactorily the details as to methods of preparation, preservation and application. In December the American Gynecological Society appointed a committee to investigate anti-streptococcus serums and report in May. The publishing of this report is now awaited with much interest.

Other anti-toxins for the cure of pneumonia, cholera, the bubonic plague, typhoid fever, yellow fellow, tuberculosis and snake venom, are passing through the experimental stage with varying degrees of success. But their place is still in the laboratory, and in the hands of the most careful observer, nor should they be hysterically thrust upon the general profession until the proof of their potency and value as therapeutic agents has been established beyond all reasonable doubt. They represent, however, the first steps taken in a field of almost boundless extent, which holds truths that medical science will yet convert into blessings of priceless value to mankind.

A brief summation of the present position of serum therapy may be made as follows :

In diphtheria alone has it proved a complete success, though it has been very efficient in both rabies and tetanus, and to a lesser degree in erysipelas and septicæmia. The evidence is strongly in favor of an early demonstration of the power of anti-toxins to protect against cholera and the plague, and probably also against snake venom. Work with all other serums is yet purely in an experimental stage, and nothing definite or satisfactory has so far been accomplished.

There are two great obstacles to the general introduction and use of anti-toxic serums. One is the large bulk which it is necessary to inject in order to obtain a sufficient number of anti-toxic units; the other is the enormous expense of preparation. The first is being rapidly removed by the

preparation of highly concentrated serums by inoculation with the most virulent cultures, the ideal aimed at being of course the isolation and complete separation of the anti-toxic principle from the serum, and its subsequent injection in a sterilized solution. The expense of preparation is still a most serious problem, and will be likely to place this means of preserving life entirely out of the reach of many classes of patients for years to come. A case is reported in which over one hundred dollars worth of tetanus antitoxin was used within a fortnight. The treatment was a success, the man recovered, and was no doubt considered a more valuable citizen after the experience than before.

In "*Science*" of March 10th, 1899, may be found a report of experiments now being carried out in Munich in connection with enzymes as remedies in infectious diseases. It is a well known fact that the "*bacillus pyocyaneus*" when injected has the power to counteract the effects of the bacillus of anthrax. It has been demonstrated, as this report goes on to show, that certain kinds of bacteria (*bacillus pyocyaneus*) produce enzymes which not only dissolve these bacteria themselves, but other microbes as well, and the claim is now made that the substances which we have termed antitoxins, and which lead to recovery from infectious diseases, and produce immunity from them, belong to the enzymes. The authors of these experiments claim to have succeeded in obtaining enzymes which combined with an animal protein may be transformed into an immunizing substance, which will be both durable and thoroughly satisfactory. As yet the experiments are incomplete, and the results have not been published in full, but the "time seems near at hand when the treatment with serum will be replaced by a cheaper and simpler method."

Ectopic Pregnancy.*

By J. W. LONG, M. D., Salisbury, N. C.

DEFINITION.

THE term ectopic pregnancy is preferable to that of extra-uterine pregnancy, because (1) the word ectopic means *out of place*, and in these cases the product of conception is out of the normal place, (2) it is claimed that in one variety (the so-called interstitial) the fetus actually develops within the uterine tissue; therefore, can hardly be called extra-uterine.

PHYSIOLOGY.

It may be stated briefly that conception normally occurs in the fallopian tube. This statement is contrary to the views held by earlier obstetric writers, who supposed that fertilization of the ovum occurred in the upper part of the uterus; the tubal cilia having wafted the ovum downward and the

*Read at the forty-sixth meeting of the North Carolina Medical Society, Asheville, June 1st, 1899

uterine cilia the spermatozoa upward. Hofmeier has shown by recent observations that the current of the uterine cilia is like the tubal current from above downward. Again, in the lower animals, spermatazoa have been observed time and again to make their way up into the tube and have even been seen swimming in the peritoneal fluid on the surface of the ovary, where, as Kelly says, they lie in wait for the ovum.

These facts, together with the additional knowledge that spermatazoa may retain their vitality for a long time after copulation, even as much as six months in the female bat and, according to Dührssen, as much as three and one-half weeks in woman, certainly tend to show that fecundation normally occurs in the tube.

Therefore, it may be confidently stated that an ectopic pregnancy is a pregnancy in which the normal downward passage of the fertilized ovum through the tube has been arrested.

CAUSES.

In a general way it may be stated that the arrest may be due to :

1. Obstacles within the lumen of the tube.
2. Some disease or abnormality of the tubal wall.
3. Factors external to the tube, encroaching upon or obliterating its lumen.

Under the first head may be mentioned intra-tubal growth and constrictions ; under the second, salpingitis, persistence of fetal type, multiple ostiæ, etc. ; while the third division embraces tumors, adhesions, twists, bends, and in fact, anything tending to hinder the free passage of the fertilized ovum along the lumen of the tube.

PATHOLOGY.

As this is a clinical paper, the pathology may be dealt with briefly. It should be noted that while the placenta develops at the abnormal location of the fetus, it is only the fetal portion that does so, while the maternal portion of the placenta develops in the uterus. It is this maternal portion that at some time during the progress of the case is cast off and often leads the obstetrician to believe that an abortion has occurred. At the point along the tube where the impregnated ovum may find lodgment there begins at once an active congestion, resulting in the thickening of the surrounding tissues and the formation of the fetal sac. Following the primary thickening there occurs thinning and stretching of the fetal sac at its weakest and most unprotected point. This is due to the rapid growth of the ovum or to hemorrhage within the sac. The outcome of the extreme thinning and softening of the tissues is rupture of the sac, allowing the contents to escape either into the abdominal cavity or between the folds of the broad ligament. This usually occurs from the eighth to the twelfth week. Exceptions to this statement may be noted. It is barely possible for the pregnancy to go to term without rupture of the tube. When rupture does occur the placenta may retain its hold in the tube while the fetus escapes into the peritoneal cavity, or the rup-

ture may occur between the folds of the broad ligament and even be followed later by a secondary rupture into the peritoneal cavity.

The limitations of this occasion forbid even a mention of all the pathological freaks that may take place. The most important feature of a rupture is the *hemorrhage*. But for the hemorrhage and the subsequent infection, the rupture of an ectopic fetation sac would probably cause very little disturbance in the woman's abdomen. If the hemorrhage is at all profuse, the woman is at once precipitated into a profound shock and even death. The hemorrhage takes place in the direction of the rupture; either into the peritoneal cavity or between the folds of the broad ligament. If in the latter place, it is limited by the resistance of the tissues, therefore not so dangerous as when it escapes into the peritoneal cavity. If the woman survives the first shock of a peritoneal hemorrhage, adhesions quickly form, being nature's supreme effort to save the peritoneum from further invasion. Even after adhesions have formed, hemorrhage may continue or recur, accompanied by shock, heart failure, etc.

It is readily understood how the conditions presented by the rupture and hemorrhage offer a favorable nidus for the development of infection, and as a matter of fact, this usually occurs in those cases that do not immediately succumb. As a result of the infection, we have the blood clots breaking down into pus, forming a so-called pelvic abscess, or the infection may be more wide-spread, producing general peritonitis and septicæmia. In either event death is likely to terminate the case unless surgical measures are resorted to.

In the general wreck the fetus is, as a rule, lost sight of; it is either absorbed by that great lymphatic gland, the peritoneum, or is broken down and lost in the suppurating mass. However, the fetus may escape with its life and go on to term either as an intra or extra-peritoneal pregnancy; or life having ceased, be converted into an encysted mass of lithopedion.

CLINICAL HISTORY AND SYMPTOMS.

It is believed that a tubal pregnancy is more apt to occur after a period of sterility. A woman sterile for some years is seized with the ordinary symptoms of pregnancy; often, in addition, there is a different or "queer feeling," as she expresses it. Perhaps the last period, instead of being entirely absent, was a mere dribble. She will probably miss the next period and at about the eighth or ninth week will notice her linens slightly stained, and there will pass from the uterus "some pieces of flesh" resembling the products of an abortion; indeed, they are pieces of the maternal portion of the placenta. Rupture of the fetal sac often occurs about this time. This may be precipitated by any act of violence, as a misstep or blow. One of my patients ruptured her tubal pregnancy by a sneeze. The prominent symptoms accompanying a rupture are pain, shock, collapse. If the patient survives the primary shock and hemorrhage, she will suffer all the horrors of peritonitis and sepsis. One patient that I saw told me that she suffered

so fearfully that she got down on the floor and tried to butt her brains out against the wall.

PHYSICAL SIGNS AND DIAGNOSIS.

A physical examination prior to rupture will reveal pulsating tumor occupying the situation of one of the tubes. The presence of such a tumor with the symptoms of pregnancy should determine one to operate. After rupture, the diagnosis is still more easy because of the history; first, of the symptoms of pregnancy, second, of the shock and collapse. In doubtful cases, err on the side of mercy, and operate.

TREATMENT.

Prior to the fifth month or the period of viability, whether before rupture or after, there can be but one rational treatment, and that is surgical. Among surgeons, this question is beyond cavil. After the fifth month, the interests of the child demand that we wait, but do not cease to watch and be ready to operate at a moment's notice.

OPERATION.

The method of operation will be determined by (1) the conditions present, and (2) the predilections of the operator.

Briefly, my choice in all ruptured and newly ruptured cases is to operate through the abdomen; in cases that have been ruptured some days or weeks the best route is through the vagina, as a rule.

REPORT OF CASES.

My experience with these cases has not been large, having seen only six cases, so far as I know. I add this qualification because I am convinced that this condition, like appendicitis, often passes unrecognized. I append the report of only a few cases by way of illustration.

CASE I. Mrs. M., Age, about 19, the wife of a member of one of our graduating class, came into my office with her husband, who wished me to examine her. She had missed one period, and at the time of the second one began to dribble and passed several pieces of flesh-like tissue. She had complained of constant pain in the right pelvic region for several weeks. On examination I found the uterus slightly enlarged, while to the right was a pulsating mass the size of a small orange. The tumor was freely movable and I expressed the opinion that it was probably an ectopic pregnancy, and advised an immediate operation. I had just lectured on the subject of ectopic pregnancy, and this young doctor and his wife had been reading up the subject, so they readily acquiesced to my advice. The same day the lady was taken to the Old Dominion Hospital, where I operated on her. After being put under an anæsthesia, she was examined by my colleague, Dr. Geo. Ben. Johnston, who agreed in the probability of an ectopic pregnancy and the indications for an operation; he also kindly assisted me in the operation. When the abdomen was opened, there were found several ounces of fresh blood in the pelvis. The right ovary was the site of a newly rup-

tured tumor containing blood clots. No fetus or definitely formed placenta was seen, nor was the tube involved. The rupture must have occurred between the time I saw her in my office in the morning, and the time when the abdomen was opened. It is probable that the sac was ruptured during the examination under anæsthesia, as both Dr. Johnston and myself palpated the parts bi-manually.

It may be objected that this case was not certainly one of ectopic pregnancy. I grant the exception, but it must be admitted that the history of a newly married woman, amenorrhœa, the recent pain and discomfort in the right side, the gastric disturbance, the dribble, the passage of flesh like-lumps, the tumor, the fresh blood in the abdomen—all point to an ectopic pregnancy.

CASE II. Mrs. G. Sterile several years; had missed two periods. In the ninth week she was sitting at the breakfast table when she sneezed and was at once taken with a violent pain in the left side of the pelvis and fell to the floor greatly shocked. My friend, Prof. C. A. Blanton, was called to see her, and later at his request I saw the case with him. At time of the consultation a tender mass could be felt filling the left pelvis. On opening the abdomen we found the left tube to be the site of an ectopic pregnancy. The fetus was not seen, but the placenta was removed from the tube and later the tube itself. The rupture had occurred on the anterior surface of the tube, and the hemorrhage consequently had escaped into the anterior segment of the pelvis above the bladder, and not into the cul-de-sac.

CASE III. Just after going to my present location, I was asked by my associate, Dr. John Whitehead, to see a colored woman, the mother of several children, who, after missing three periods, was seized with an intense abdominal pain, shock, etc. The woman had been in the throes of peritonitis three months when first seen by Dr. Whitehead. The next day he asked me to see the case with him. A mass was found filling the entire pelvis and extending half way up to the umbilicus. The woman was so emaciated and in such extremis that we feared to give much anæsthetic, so Dr. Whitehead cautiously administered a very little, while I quickly made an incision in the posterior vaginal fornix, opening into a large septic cavity full of broken down blood clots, detritus and pus. Free drainage soon brought this woman from a mere skeleton to 160 pounds, her usual weight.

CASE IV. A western lady recently moved to a North Carolina town, having been several years sterile, missed two periods, and becoming anxious about herself, introduced a pencil into her uterus. Shortly afterwards, uterine pains and flow set up. These continued for a week, when she was suddenly seized with an agonizing pelvic pain, precipitating her into a profound shock. Dr. Stanton, of High Point, was attending her, and the woman having confessed the use of a pencil, he suspected a ruptured uterus. And he certainly had good reasons for thinking so. The woman rallied after a few hours and the next day had another attack. On the fifth day I was asked to see the case with Dr. Stanton and Dr. Scott of Mebane. I found the woman highly septic, delirious, vomiting and greatly

prostrated; temperature ranging from 102° to 104° ; pulse frequent and feeble; abdomen tympanitic and tender. On bi-manual palpation the pelvis and half the abdomen was found to be filled with a very tender mass, while the uterus was pushed upward and well to the front. The case was puzzling, but I expressed the opinion that it was one of ruptured ectopic pregnancy, in spite of the pencil episode. Drs. Stanton and Scott concurring, we lifted her gently onto a cot, placed the cot in the baggage car and took her to Salisbury, where she was operated on immediately on our arrival at the Sanatorium. A vaginal incision opened at once into an immense cavity filled with blood. Putting in two fingers I brought forth the fetus and more than a half gallon of blood clots. The adherent right tube and ovary with the placenta attached were loosened up and drawn through the vaginal opening, a ligature was placed around the tube close to the cornua and the right appendages cut away. A rubber T-drain was placed into the cavity and stitched to the side of the incision, while plain gauzé was firmly packed into the cavity. This woman was in extremis, yet in spite of the widespread peritonitis and sepsis she progressed steadily to a perfect convalescence.

I have operated on two other cases—one ruptured and the other unruptured, but I will not weary you with the details of them; suffice it to say, that all my cases have recovered.

Report of a Case of Tumor of the Brain, Symptomatically Relieved by Exploratory Operation Upon the Skull.*

BY WILLIAM BROADDUS PRITCHARD, M.D., AND JNO. A. WYETH, M.D., of New York

TUMORS of the brain constitute a comparatively small, but an exceedingly interesting and important group among the diseases to which human flesh is heir. Within the past ten years, a period devoted chiefly to the observation and study of affections of the nervous system and the mind, I have personally seen only fifteen cases in which such a diagnosis was tenable, with any certainty, and it is quite possible that autopsy would have failed to confirm such diagnosis in an appreciable percentage of this total. In eight of these cases, however, in which either autopsy or operation afforded opportunity for confirmation the tumor was found. The interest attaching to the subject, while entrancing, is unfortunately rather pedagogic than practical. I do not believe that this is necessarily so, however, and one object and the chief one, in presenting the subject to your attention is that of aiding in establishing the converse of this proposition. There is no single problem in clinical neurology so protean in its symptomatic aspects, so fascinating in its attractiveness, so uncertain in its developmental possibilities,

*A Paper read before the North Carolina State Medical Society 46th Annual Meeting, held at Asheville, N. C., June 1st, '99.

and finally so gratifying to the student enthusiast in its irrefutable demonstration, as that of tumor within the cranial cavity and of the cerebral structures. The full and intelligent study of this condition involves a masterly grasp of the entire subject of cerebral anatomy, physiology and localization, as well as thorough familiarity with the recorded facts of empirical experience. Even this degree of knowledge is insufficient in the absence of common sense, since the importance of the personal equation of the patient in intelligence, education, environment and heredity enters largely as a factor in diagnosis. The importance of the subject scarcely needs emphasis. Tumors of the brain are essentially fatal. The *vis medicatrix naturæ*, that most potent ally of the physician in ordinary disease, is as helpless here as impotence itself. The fate of the victim of tumor of the brain, if nature alone be depended upon, is no less desperate than that embodied in the inscription which marked the portals of Dante's *Inferno*, "Leave hope behind all ye who enter here." The utmost attainments of medical art are almost equally futile. I have yet to learn of an authentic case of spontaneous or medically induced recovery from [intracranial tumor, except possibly cysts. Gumma I exclude. The stimulus to effort which is embodied in this statement is, or at least should be, all powerful. To cope with disease successfully, with the assistance of nature, represents a degree of usefulness which should not be despised. To cope successfully with disease unaided, is self evidently the greater accomplishment and represents the highest possibilities of the art. The ultimate and ideal aim of medicine is mastery of disease regardless of coadjutant factors. For the present he is a fool who disregards any source of help. To aid in saving life is worthy, to save life should be the very acme of our effort.

I shall not burden you with a resume of the abstract clinical facts of brain tumor. To cover the subject adequately would necessitate a paper far beyond the time limit permitted by the occasion. The subject is exhaustively considered in many standard text books and monographs, and is probably familiar to my audience. Many if not most of the clinical facts correlated to the subject are illustrated in the case to which I desire to call your attention. I beg your indulgence in advance for a case history which almost necessarily may appear prolix.

The patient, P. L. B., was first seen by me November 20th, 1897, at his home in Asheville, N. C., in consultation with my friend Dr. H. B. Weaver. The object of the consultation was to determine the nature of an epilepsy from which the patient suffered. The following history was obtained: P. L. B., male, aged 30, married, merchant by occupation, family history negative. Personal history free from any record of serious illness or injury up to 1882. During the Spring of 1882 patient was suddenly attacked with a fulminant and severe form of cerebro-spinal meningitis. His occupation at that time was that of a farmer in the mountainous region of Western North Carolina, a locality subject to recurring epidemics of cerebro-spinal meningitis. His attack was of some five or six weeks' duration, recovery being apparently complete, the disease leaving no nervous sequelæ. Six

months later the patient suffered from his first (so far as known) epileptic attack, which occurred at night, without warning or assignable exciting cause. This convulsion was general in distribution and of comparatively severe type, the tongue being bitten. Subsequently other attacks followed, always at night (two diurnal attacks only in seven years), always general, always without aura. His condition remained practically the same up to 1889, except that the average number of seizures increased from two or three to five or six a month, the paroxysms preserving the same characteristics. In 1889 he moved his residence to Asheville and changed his occupation from farmer to merchant. For three years subsequently and without other assignable cause than that of change of residence and occupation, he remained absolutely free from these attacks, his health being, to quote his own language, "perfect." In 1892, without any known cause, the epilepsy recurred, but in an entirely different form. While an occasional nocturnal attack would occur, the majority of the seizures were diurnal. Instead of being general and severe as formerly the attacks were lighter and often unilateral and occasionally without loss of consciousness. Very many of these later attacks were preceded by an aura consisting of a strange and indescribable sensation in the left side (leg and arm) and with an initial motor spasm or signal symptom in the left foot. In exceptional instances this signal symptom was limited to a tonic rigidity of the toes, chiefly the great toe. Quite often the entire seizure would consist of the sudden aura described, with a succeeding tonic rigidity of the foot muscles. More frequently the spasm would extend quickly up the leg, thence to the arm of the same side, next to the left face, ending in unconsciousness and sometimes generalized tonic and clonic movements of the muscles of the entire body. Usually the interval between the aura and the spasm permitted sufficient preparation to prevent injury from a fall. Occasionally the upward extension of the spasm, beginning in the foot, could be prevented by pressing the foot firmly against some object or by grasping in constriction the thigh of the same side. These paroxysms varied considerably in frequency. Eight or ten or even more might occur in a day. On the other hand, he would sometimes remain for several days perhaps, free from attacks. During the interval he suffered greatly from severe headaches associated with vertigo and occasional though infrequent sudden vomiting. The headaches at times were said to have been agonizing. Minor occasional changes in temperament and emotional stability were noted, but intellectual processes proper are said to have remained unimpaired. During the summer of 1897 the patient noticed a gradually developing weakness of the left leg and arm which slowly but steadily increased. At about the same time he began to notice peculiar disturbances of vision. He would suddenly become totally blind. "I would have to stand still for a few minutes, when my sight would just as suddenly return," to quote the patient. An extreme polydipsia developed, as much as two gallons of water being often consumed in a day. There was of course a corresponding polyuria. There were no other subjec-

tive symptoms except numerous inconstant and very variable paresthesia of the left side.

PHYSICAL EXAMINATION.—The patient appeared a well developed and fairly nourished man of about the age given. Mentally I observed no variation from the normal. Memory, reason and judgment seemed unimpaired. The mental reflexes were quite normally active. I observed no emotional instability whatever. Motor and sensory speech were normal. Taking the cranial nerves in numerical order, the sense of smell was not affected. In testing vision I found a fair perception of light with a bare perception of form. Ophthalmoscopically the fundi showed well advanced double optic neuritis. The ophthalmoscopic findings were established by Dr. Taylor, of Asheville, and later by Dr. Marple of New York. The extrinsic muscles of the eye (3rd, 4th and 6th) were normal and the eye was moved freely in all directions. There was no sensory impairment in the area supplied by the fifth. Innervation of the facial muscles was about equal on the two sides and there was no asymmetry. The auditory nerve was intact on both sides. There was no impairment of taste. The vagus was not affected. The tongue was projected without deviation. Examination of the upper extremities showed decided ataxia of the left arm and hand. Forced flexion and extension of the muscles of the arm and forearm showed distinct weakness of the left as compared with the right. Left hand grasp by dynamometer, 28; Rt. 70. No atrophy. Slight tremor of *right* hand and arm on extension. Tactile, pain and temperature sense, normal and equal on the two sides. Muscular sense impaired on the left by comparison with the right. Wrist and triceps reflexes exaggerated on the left. Lower extremities: gait hemiplegic with drag of left foot. No contractures but slight spasticity of left leg. Flexors and extensors of left leg, ankle and thigh distinctly weaker than right. No Romberg present, but was unable to stand on left leg alone. Left knee jerk quite actively exaggerated and clonus present on left side. No atrophy. No sensory impairment was demonstrated at this time. The tests employed were however not at all elaborate or delicate in detail. There were no rectal or vesical symptoms. A summary of the facts related, obtained from the history and a personal examination, led promptly to the diagnosis of brain tumor, the symptoms constituting an almost classical group. It seemed equally legitimate, basing the conclusion upon the nearly always constant aura of paresthesia of the left leg and arm and of a signal symptom or initial motor spasm affecting the left foot and leg, to assume that the tumor was located in the upper third of the Rolandic region of the right side. The frequent occurrence of spasms limited to the foot alone and sometimes to the toes, pointed to the post central rather than the præ Rolandic area. The sensory aura and the disturbance of muscular sense in the upper extremity, together with the apparent non-involvement of mentality, at least in its higher spheres, seemed consistent with and indeed confirmatory of this view. The absence of family or personal tuberculosis or syphilis and of cancerous tendencies, together with the empirically known fact that gliomatous growths are next

perhaps in frequency, served as a basis for a presumptive diagnosis, from the pathological standpoint, of glioma or gliosarcoma. The etiological relationship of the preceding cerebro-spinal meningitis offered many conjectural possibilities but nothing positive and little if any precedent. The prognosis was necessarily pessimistic and in extreme degree, with one modifying possibility, and one alone. Assuming the diagnosis to be correct, the one chance for life lay in the direction of surgical interference. Following a time-honored precedent, the value of which I have confirmed through personal experience, I advised that the patient be put upon steadily and rapidly increasing doses of potassium iodide. If after reaching a daily dose of 300 grains, attainable in a month or six weeks by gradual increase, no improvement should result, I advised that the patient be sent on to New York, placed in the Polyclinic Hospital, there to be watched by trained attendants under my supervision, and if the symptoms observed confirmed the diagnosis already made, then open the brain and if possible remove the tumor. Should death occur from operation, it would be only an anticipation by a few weeks or months of a fate which was inevitable, and the patient would have the benefit of a legitimate euthanasia. My advice was followed to the letter. The iodides proving useless, the patient came to New York accompanied by Dr. Weaver and was admitted to the Polyclinic Hospital. Within less than a week the history as already given was confirmed. The symptoms had meantime progressed markedly. The patient was totally blind. Beginning atrophy had succeeded the neuritis. He was completely helpless, the hemiplegia having become almost absolute. The spasms had increased, as many as twenty or more occurring sometimes daily. The headache was excruciating and continuous. Insomnia added its agonies to the picture. The patient begged for death and expressed himself as more than willing to take any risks involved in surgical interference. Preliminary to the operation I made a further and more elaborate and exact examination of the patient. In addition to the demonstration of the symptoms already mentioned, which differed from former observations only in degree, I noted the following exceedingly interesting sensory and other phenomena. In the lower extremity (the leg) there was present decided defect of tactile sense. He was unable to distinguish cotton or cloth from wood or the touch of the finger. When touched at more than one point he was totally unable to determine the number of points of contact. A peculiar ataxia or allocheira of tactile perception was manifest. When touched on the left leg he would say it was the right. When touched on the left foot he would refer the tactile impression to the knee or thigh perhaps. This was true also of pain sense. He was unable to differentiate differences in the degree of pressure or weight upon the leg and was totally unable to duplicate accurately with the right leg or foot the various positions into which I put the left leg. At this time a very marked and aggravated degree of tremor was noticed on the sound side (the right) on any muscular effort involving extension of leg or arm. The scalp having been shaved, several observations were made as to difference in sur-

face temperature upon the two sides of the skull. The results were not entirely negative, but they did not admit of any positive conclusions. A distinct and constant difference was, however, plainly evident in the percussion note over the parietal region of the two sides, decided and constant increase of dullness being noted over the right as compared with the left. This difference was demonstrated upon several occasions and was invariably present. These symptoms were construed as confirming the localizing diagnosis placing the tumor at or beneath the post-Rolandic or post-central convolution on the right side in its posterior and lower segments adjacent to and probably involving (from the sensory symptoms) the supra marginal and angular gyri. I hesitated in an opinion as to a cortical or subcortical localization for obvious reasons, but leaned rather to the subcortical in view of the fact that purely mental processes were absolutely intact. That the cortex was *involved* I felt no doubt, and I also believed that the tumor was accessible surgically and probably removable. On January 20th Dr. Wyeth operated.

REPORT OF THE OPERATION.

On the 20th of January, 1898, at the New York Polyclinic Medical School and Hospital, the following operation was performed on Mr. B., of Asheville, N. C. :

A diagnosis of a tumor near the right fissure of Rolando, at the lower border of the upper third, posteriorly, had been made by Dr. Pritchard, who had carefully studied the case from the standpoint of the neurologist. A large horseshoe-shaped incision was made through the scalp down to the cranium. The convexity of this incision was near the median line of the skull and extended toward the temporo-parietal suture about four inches, there being about three inches between the sides of the incision. The bone was exposed by separating the scalp on either side of the line of incision for about a quarter of an inch, leaving it as closely adherent to the bony flap to be elevated as was possible. With a small sharp chisel the bone was now furrowed, and with the aid of the De Vilbiss rongeur the bone was entirely cut through in line with the primary incision. The completion of the operation was postponed, as is my custom, to the following day. The following day this flap of bone was fractured across the points between the ends of the incision, and with the adherent scalp was turned down over the patient's ear. The dura mater was incised in the same line as the original flap and this was also turned down and the brain exposed. By careful exploration with the dull end of a long-hagedorn needle the tumor could be distinctly felt, measuring more than two inches transversely and so deep-seated and so far from the surface that its removal was deemed unjustifiable. It was found impossible to stitch the dural flap in position as the brain bulged through the opening, and as this membrane had been worn to extreme thinness by the long-continued pressure of the brain, the sutures would not hold.

The trap door of bone and adhering scalp was restored about to its original position, leaving one-half inch of room for relief of pressure.

The patient did well after the operation, despite the development of a *fungus cerebri*.
JOHN WYETH.

Several interesting problems present themselves in connection with this case. I shall confine myself, lest I trespass too far upon a tolerance taxed, I fear, already to the limits of courteous endurance, to two aspects alone. To what extent is surgical interference indicated or permissible in tumor of the brain? What is the explanation of the symptomatic relief obtained in this case, in which the tumor was not removed? The two problems are correlated to such a degree as will permit of their joint consideration. The facts of experience, personal and impersonal, justify, I believe, the acceptance of the following propositions: Tumor of the brain per se is essentially fatal regardless of pathological type or location. Possible and rare exceptions are tubercular and cystic neoplasms. Syphilitic gummata should not be considered a variety of brain tumor. Surgical interference is the only hope and is not only indicated but imperatively demanded. In a small proportion of cases, depending upon location and pathological type, surgical procedure may prove curative. Ferrier states this proportion as 13 per cent., which seems rather optimistic. In many cases, Ferrier says more than 50 per cent., surgical interference offers the probability—indeed a reasonable certainty—of symptomatic relief and prolongation of life. Results here also vary in degree, though less so, with the factors of pathogenesis and locality. In all cases, regardless of pathological variety, localization or multiplicity of lesions, osteoplastic operations upon the skull are not only permissible, but indicated, since they offer the only hope and under proper precautions and technique, exploratory entrance of the skull involves but little danger to life per se. Such operations should, by the way, be always primarily exploratory.

With regard to the second problem, theories rather than facts must necessarily enter into the answer. In the case presented the tumor was not removed and yet the patient (who I feel confident would have been dead long ago but for the operation) is not only alive but is and has been free from headaches, epilepsy and all other irritative symptoms for more than a year, has recovered his general health and strength and is able to make a living. To what does he owe his improvement?

The results in this case are not unique, many similar instances having been recorded, notably several which were reported at the meeting of the British Medical Association, in Edinburgh, just a year ago, by Horsley, Waterhouse and others, and by Kramer of Cincinnati. Irritative symptoms may be and often are due in intracranial tumor to increased intracranial pressure. The relief of such pressure by opening up the skull suggests an explanation. I cannot believe, however, that such relief would be either permanent or prolonged. Our patient eighteen months after the operation is free from irritative symptoms.

Another theory suggests itself: The operative field it will be remembered, was subsequently filled with an enormous hernia cerebri. The major part of this hernia eventually sloughed off. Why is it not possible

and indeed probable that the tumor, following the law of all neoplasms, which is growth in the direction of least resistance, should have grown out of the cranial cavity with the hernia and been sloughed off with it? I believe this theory to be additionally probable if, as assumed, the growth was gliomatous. There is some precedent in support of this theory. My friend Dr. Weiner of New York, in his report of a somewhat similar case with enormous hernia cerebri following the operation, found on microscopical examination of the hernia tissue that it was chiefly composed of cancerous tumor elements. Still another theory has been advanced, to the effect that surgical trauma is sometimes pathologically alterative, so to speak, as for example in the effects from scarifying ulcers. This last hypothesis seems to me to be least entitled to credence and I do not offer it with any personal endorsement whatever.

A Quaint old book, the *Memoirs of Louise Bourgeois*, the midwife who assisted at the birth of the children of "Henry of Navarre," about 1600, contains the first description of the treatment of placenta previa, as she describes her practice of interfering whenever the hemorrhage threatens a fatal termination, the uterus gaping without pain, from the relaxation of extreme weakness, "watching a woman as a cat watches a mouse, and fighting for her with eye and finger"—"breaking into the uterus as one would into a house on fire." She mentions a child "born without a seat," but healthy, the feces being discharged through the vagina. She advised against an operation, as she "was sure her friend, the lamented Monsieur Paré would not have operated in this case," observing that "if women who seek to entice married men from the path of virtue were built this way, many wives would be happier than they are now."

Inconsistent Philozoists.—In his address at the opening of the physiological and pathological laboratories at Belfast, Ireland, Lord Lister took occasion to give some illustrations, drawn from practice, of the value of pathological research. "There are people," he said, "who do not object to eating a mutton chop—people who do not even object to shooting a pheasant with a considerable chance that it may be only wounded and may have to die after lingering in pain, unable to obtain its proper nutriment—and yet who consider it something monstrous to introduce under the skin of a guinea-pig a little inoculation of some microbe to ascertain its action. These seem to me to be most inconsistent views. If these experiments upon the lower animals were made for the mere sport of the thing, they should be indeed deprecated and decried; but if they are made with the wholly noble object of not only increasing human knowledge, but also of diminishing human suffering, then I hold that such investigations are deserving of all praise. Those little know who lightly speak on these matters how much self-denial is required in the prosecution of such researches when they are conducted, as indeed they always are, as far as I am aware, with the object of establishing new truth."—*Popular Science Monthly*.

North Carolina Medical Journal.

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Editorial.

AN EXAMPLE FOR MUNICIPAL AUTHORITIES.

The city prison of Wilmington is in a very unsanitary condition, being located in the basement of the city hall. There is no provision for the separation of the races. The present board of aldermen have been discussing the matter, and estimates for remodelling the prison give the cost at several thousand dollars. The board were unwilling to allow such a large sum, at the same time deploring existing conditions. A report of the proceedings of the meeting of the board in the *Morning Star* says: "Mayor Waddell reiterated the great necessity for better accommodations in view of the approach of the summer season, declaring that in its present condition the city prison is a menace to the health of those confined therein, and that in case a death should occur traceable to this origin, the city would be liable for damages. He said that before he would sentence prisoners in the future to terms in the city prison, if he could not get permission for their imprisonment in the county jail, he would turn them loose on the community rather than confine them inhumanely in a dungeon already condemned by the city and county physicians."

Mayor Waddell is a leading lawyer of Wilmington, and fully appreciates the duty of the city to look after the health even of prisoners. His vigorous stand and his support of the opinion of the superintendent of health induced the board to take further action in the matter, with the probability that the condition will soon be improved. The most encouraging part of the whole matter, however, is the increasing weight the opinion of the medical profession on sanitary questions has upon the intelligent classes. With such

support from those in authority as is given by Wilmington's able mayor, much could soon be done to improve the health and increase the longevity of our people.

ANTISTREPTOCOCCIC SERUM IN PUERPERAL SEPSIS.—At the 24th Annual meeting of the American Gynæcological Society, Dr. J. W. Williams, chairman of the committee appointed to investigate the serum treatment of puerperal sepsis, made a formal report. He stated that the report was a preliminary contribution, based upon a review of the literature on the subject, as the experiments undertaken by the members of the committee had not been completed. In 1895 Marmorck had presented his first communication, in which he stated that the virulence of streptococci could be preserved by cultivating them in a certain medium composed of bouillon and human blood serum. Shortly afterwards he had made a second report of 46 cases of erysipelas treated by his serum with most satisfactory results, and 16 cases of puerperal sepsis treated in a similar manner, seven ending in recovery.

In 1896, forty additional cases of puerperal fever were reported by Charpentier, of which only 24 recovered—a mortality of 35.25 per cent. Of these cases there were 16 in which a streptococci infection had been demonstrated, and of this number 7 had died. As a result Charpentier, in common with most physicians, had been led to the conclusion that the method was of slight value.

The committee had collected 354 cases in which the serum had been used, with a mortality of 20.6 per cent. Of 70 cases treated by French and German observers, where a streptococci infection was shown, 24 had been fatal. In a series of 242 cases in which no bacteriological examination was made, the death rate was 14 per cent. The committee assumed that this low mortality was due to the fact that many of this group of cases were not instances of streptococci infection and would probably have recovered in any case. Moreover, the work of the bacteriologist seemed to show that there was a marked difference among the groups of streptococci, which could not at present be differentiated and this was one cause of contradictory results. A serum effective against one class of infection was powerless against another, and as it was practically impossible to identify the varieties, the outlook for the antistreptococci serum treatment was very discouraging. About the only positive knowledge resulting from investigation of the subject, was the fact that was possible greatly to increase the virulence of streptococci.

Aseptic Duelling.—Acting as principal in a French "affair of honor" has always been regarded as one of the least hazardous of occupations, but now it is rendered still safer by means of antisepsis. Since accidents may always happen, a combatant occasionally receives a scratch, so it is necessary to insure against the introduction of pathogenic microbes. At a recent encounter, brought about to decide whether Hamlet was fat or thin, it is reported that whenever the weapons used touched the ground the combat was immediately suspended until the blades could be passed through the flame of an alcohol lamp, in order to destroy any tetanus germs that might possibly be so taken on the tip of the sword.—*Medical Record*.

News and Items.

Merck's Archives offers prizes, aggregating \$500, for the best ten papers on a remedy or therapeutic management of a disease.

Cure for Tuberculosis.—Dr. Armond Gautier, professor of chemistry in the School of Medicine, Paris, announces the successful treatment of tuberculosis by injections of solution of sodium of cacodylate.

Rectal Enemata to Relieve False Labor Pains.—Burns, in the *Journal of the American Medical Association*, highly recommends a rectal enema of four quarts of water for the relief of false labor pains, followed by the hypodermic injection of $\frac{1}{4}$ gr. of morphia sulphate, which may be repeated by the mouth, as needed.

The Thirst for Knowledge.—A gratifying indication of the progress which the broad principles of medical science are making is found in the fact that fifteen homeopathic physicians, after a course of study at the Cleveland College of Physicians and Surgeons, took diplomas from that institution at its commencement on May 3rd. The recent marvelous advances in medicine have left no room or even plausible excuse for sectarianism; and it is most encouraging that so many of our homeopathic brethren have the clearness of vision as well as the honesty to recognize the fact.

A Temporary Falling-Off in the Number of Graduates.—This is the first year that the requirement of the Association of American Medical Colleges for graduates to have taken a four years' course goes into effect, and, inasmuch as the students who matriculated four years ago found it possible to complete their course of study in three years, the number of medical graduates this year is markedly small. Starling Medical College, of this city, had but two graduates; the Ohio Medical University, four; Louisville Medical College had nine; and the medical department of the University of Louisville, thirteen. Reports from other institutions show correspondingly small classes.—*Columbus Medical Journal*.

The Telephone Microbe has been pronounced harmless by Dr. H. W. Hill, of the Boston Board of Health. Cultures were taken from ten telephones in the business section of the city, and subjected to the usual incubation and microscopic examination. The washings of the swabs were injected in guinea-pigs, and three months later they were killed and examined for tuberculosis. No lesions were found. Two telephones yielded nothing; six showed nothing but the hay-bacillus and of the two remaining ones produced a large harmless cocci, and the other a short beaded bacillus, also harmless. He concludes: "Practically, then, the telephone transmitter cannot be considered a usual or dangerous source of disease, but at the same time its possible action as an occasional medium for the carriage of disease must be admitted."

Epidemic of Lead-poisoning.—There occurred recently, in the Quartier de Monceau (Paris), 66 cases of acute lead-poisoning—the result of eating bread from a neighboring bakery. The baker had used for fuel wood that had been painted.

Local Anesthesia.—Dr. Kofmann, of Odessa, recommends a modification of Oberst's method of local anesthesia. He simply places a constriction band around the part, and does not operate until the tissues become blanched. No injection of cocaine is needed, since this procedure alone suffices to produce complete anesthesia. He never applies a rubber constriction band to the fingers and toes, but always beyond the next joint, because he has had a case of pressure gangrene of the big toe resulting from such constriction.—*Medical Record*.

Inoculation for Enteric Fever in the British Army.—The British War Office has decided that soldiers proceeding to military stations abroad where enteric fever is rife, shall be given the opportunity of the process of inoculation against the disease, which has been revived by Prof. A. E. Wright, the professor of pathology at the Netley Military Hospital. Professor Wright, as the result of some experiments, considers that such inoculations exercise a protective influence against the disease. Considering the terrible scourge which enteric fever is known to be to the young soldiers of all armies serving in hot climates, he will, undoubtedly, have rendered humanity great service, if his views prove to be correct. At the present time many people consider the experiments too small in number and inconclusive in result to warrant very sanguine expectations being based upon them. Still, they have received official endorsement to the extent we have indicated.—*Philadelphia Medical Journal*.

The Effects of Protracted Insomnia.—An Italian physician, Dr. Giulio Tarozzi, of Pisa, has been studying the effects of enforced loss of sleep on four dogs (*Rivista di patologia nervosa e mentale*, January; *Independance medicale*, March 29th.) The animals were watched night and day, and all possible means of rousing their attention and annoying them were taken to prevent their sleeping. Even at that, however, absolute insomnia was not secured, although practically the poor creatures were kept awake until death occurred. The fatal termination is described as taking place rather rapidly and as being preceded by a sudden and decided rise of temperature, followed by a gradual fall. The amount of sulphates and phosphates in the urine showed no characteristic change during the experiments; the chlorides were diminished in every instance during the few days preceding the animal's death. It is to be hoped that Dr. Tarozzi's results, meagre as they are, will be accepted without the repetition of so cruel an experiment, one well calculated, it seems to us, to play into the hands of those well-meaning but misguided people, the antivivisectionists.—*New York Medical Journal*.

"Doctor, why do you advise me to do so much walking in hot weather?" "I thought if you saved car fare you might pay it on my bills."—*Chicago Record*.

Book Reviews.

The American Medical Quarterly is a new journal published by a company of similar name, from the well-known location "100 William Street, New York." The editors are kept incognito, but the first number favored with contributions from Dr. Joseph M. Mathews, Dr. Hobart Amory Hare, Dr. Matthew D. Mann, Dr. Charles A. L. Reed, Dr. Wm. C. Krauss, Dr. Lawson Tait, Dr. Ernest Wende, Dr. Charles B. Nancrede, Dr. John O. Rae, and Dr. George Henry Fox. No matter who the editors may be, the above list of contributions is sufficient evidence of the value of the first number. This number contains ninety-six pages and the price is \$2.00 a year.

The Literary Digest, June 7th, contains a number of abstracts of able editorials on subjects that agitate many minds at this time, "Force and Conciliation in the Philippines," "Germany's Purchase of Spain' Islands, and Admiral Sampson on Our Future Army and Navy."

Our soldiers have been accused of inhumanity in the Philippines. This is shown to be false in a dispatch from Prof. Dean C. Worcester, of the Philippine Commission. Many other subjects of general interest are found in the number such as "Has the Germ of Cancer Been Found," "How Old is Niagara," "A Catholic View of the Philippine Friars," "The Plague in India," "The Russians in Persia," and many others.

Text-Book of Ophthalmology. BY ERNST FUCHS, Professor of Ophthalmology in the University of Vienna. Authorized Translation Revised from the Seventh Enlarged and Improved German Edition. By A. Duane, M. D., Assistant Surgeon, Ophthalmic and Aural Institute, New York. With two hundred and seventy-seven illustrations. Second American edition. 860 pp. New York; D. Appleton & Co. 1899.

As stated by the translator in the prefaces, five German editions of this book have been issued since the first edition of the translation was issued in this country. Each of them has been characterized by the addition of important new matter and by the thorough revision of the old. This is particularly the case with the last or seventh edition, which, in addition to the merits of lucidity, judicious treatment of the subject, and excellence of proportion and balance that have always characterized Prof. Fuchs' treatise, bears everywhere the marks of the most thorough revision, of additions and corrections, bringing the book up to date in all its parts, so that it presents an excellent summary of ophthalmological science as we know it to-day.

The most marked changes are met with in the sections on functional examination, the pathology of corneal and conjunctival diseases, and the diseases of the fundus. The translator has thought proper to insert two new sections, one upon heterophoria and one upon the use of homatropine and the other cycloplegics, and the general subject of the correction of refractive errors. Added to these excellencies cited by the translator, it remains to be said that he himself has performed his task superbly by turning the German text into smooth, flowing, and expressive English. In looking over the list of delicate operations about the eye, it seems that there is scarcely one of them that is not due to German patience and ingenuity, one or all of the leading methods in each case being named for some German operator.

The letter-press as well as the illustrations complete the excellencies of the book, which assure for it an improvement on the high position and great usefulness of the former edition,

An Epitome of the History of Medicine.—By Roswell Park, A. M., M. D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo. Second Edition. Illustrated with Portraits and other Engravings. $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xiv-370. Extra Cloth, \$2.00 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

This is, as its title implies, an epitome of medical history, and we can join with others in the hope that Dr. Park may find time to write a more comprehensive work upon this important subject, for those who may care to go more deeply into the matter. To the average medical man, and to the layman, the present volume will prove of unusual interest, as indeed has already been shown by the prompt exhaustion of the first edition within twelve months.

The importance of a knowledge of the history of medicine consists, as the author says in his preface, as much as anything else in knowing what not to do, thus avoiding a repetition of the gross errors that have characterized the gradual advance of medical science from the dark ages of superstition to the present more rational science of to-day.

An idea may be formed of the scope covered by the present volume from the following :

Chapters I. and II. give an account of the ancient medical art of the Hebrews, Egyptians and Greeks, gradually merging into the "Age of Foundation," during which Hippocrates flourished. The "Age of Transition" is covered in Chapters III. and IV. and includes the history of medicine from A. D. 201 to 1400. The "Age of Renovation" embraces the period from 1400 A. D. to the present time. In addition to the foregoing, Chapter XI gives a historical sketch of medicine in America; Chapter XII treats of anæsthesia and analgesia; Chapter XIII gives the history of antiseptics; Chapter XIV is an epitome of the history of Dentistry, while in the present edition a chapter has been added on "Iatrotheurgic Symbolism."

The book is rendered additionally attractive by illustrations of many old instruments and devices for treating disease, and by numerous portraits of the distinguished medical men of all ages.

THE PULSE IN TYPHOID FEVER.—In a paper read before the Massachusetts Medical Society, Dr. Henry Jackson speaks of the value of the pulse in typhoid fever. He says: "The pulse is almost an infallible guide in prognosis of typhoid fever. If it goes to 120 it is a danger signal. I am so sure of my ground in this matter that, in the individual case, I dare make a favorable prognosis if the pulse is slow, no matter how unfavorable the other symptoms may be. On the other hand a rapid pulse, independent of any complications like hemorrhage or pneumonia, causes me great anxiety." A sudden rise of pulse without apparent cause suggests hemorrhage, especially if accompanied by fall in the temperature. A rise in pulse also gives early warning of perforation. Dr. Jackson quoted from Dr. Steadman's essay on typhoid fever as follows: "Temperature for diagnosis is invaluable. For guidance during the disease I rely on the pulse. I have seen no patient die whose pulse has not reached 120°, 24 or more hours before death. In these 10 years the pulse has given the warning of approaching trouble even when the temperature signified nothing."

Hiccough.—An obstinate case of hiccough is reported by Belcher as being promptly relieved by a dram of fluid extract of ergot.

Review of Medical and Surgical Progress.

The Widal Reaction.—Drs. Alfred Stengel and D. L. Edsall, in a review of general medicine in "*The American Year-Book of Medicine and Surgery*," most appropriately calls attention to the fact that with reference to the Widal reaction it is necessary to differentiate between typhoid fever and typhoid infection. They point out that a considerable number of cases have been recorded in which the symptoms and lesions of typhoid fever were found to be absent, and in which the typhoid fever bacillus was discovered in the tissues. Some of the cases in which a positive Widal reaction was recorded in patients not suffering from typhoid fever may be explained as instances of such typhoid infection. In other cases in which an affirmative Widal reaction was obtained the patients may have had either a typhoid infection without typhoid fever symptoms, or they may have had typhoid fever without having any knowledge of the fact. Continued investigations have more firmly established the great practical usefulness of the Widal test, while its limitations have been more clearly demonstrated.—*Medical Review*.

Malaria and Mosquitoes.—Major Ross, I. M. S., the recently appointed lecturer in the School of Tropical Diseases, delivered an interesting illustrated lecture on the "Relations of the Malarial Parasite to the Mosquito," in the Physiological theatre of University College, Liverpool. The *Lancet* of May 27 gives a brief report of this lecture. Major Ross says that malaria is not so dramatic a disease as cholera. It does not kill so quickly, but it kills far more people. In India the deaths due to malaria are estimated at 5,000,000 a year. It is also a politically important disease, because it checks the progress of civilization in the richest districts of the world, and kills more of the English soldiers than are killed by the enemy. Malaria is certainly due to a parasite in the blood. Of this Major Ross is absolutely certain, having studied the subject for ten years in the tropics. The lecturer explained how the parasite gradually develops, destroying the corpuscle of the blood, leaving them mere shells. When fully developed, it scatters, and attacks other corpuscles, destroying and poisoning them likewise. Even if not numerous enough to cause fever on account of being bred in comparatively small numbers, they cause an indifferent condition of health. The treatment is quinine, but this does not always help. What we require to know is how malarial fever is produced. To do this we must find the parasite in external nature, and this problem has been solved by Dr. Patrick Manson. Besides the forms of malarial parasites described, other forms are found. Dr. Manson described how, in watching a drop of blood drawn from a malarial patient, there was seen in eleven minutes the remarkable effect of snake-like forms wriggling away and disappearing. He came to the conclusion that the life history of the malarial parasite, when it leaves the human being, is carried on in the mosquito, and therefore that malarial fever is propagated by the mosquito. Major Ross described how in the tropics he followed out Dr. Manson's theory

beyond the point where the latter left it. The mosquito, which is not an ephemeral insect, but one which will live for months, under favorable conditions, he found to be furnished, in certain species, with an internal process which develops the parasite in its present poison and lodges it in the poison gland opening into the creature's proboscis. The mosquito, in puncturing the skin, thus inoculates the human being with the malarial poison.

Typhoid Fever in New York State in 1898.—The public press has quite generally recognized that an unusual number of deaths from typhoid fever occurred throughout the country in 1898, but no effort has yet been made, I believe, to find in what localities the disease was especially prevalent. The recent epidemics in Newark and Philadelphia have drawn my attention to the statistics of this State, and some results of an analysis of the figures may be of public interest.

The best method is undoubtedly to compare the number of deaths from typhoid fever with the population, but there has been no general count of the people of New York State since February, 1892; the local estimates of population are not always to be accepted without reserve, and the deaths, at any rate in the rural districts are not all reported. So I chose to compare the deaths from typhoid fever with those from all causes.

It may be noticed at the start that the death rate from typhoid fever in the States of this country where careful records are kept is higher than in certain countries of Western Europe. This appears from the following table compiled from the figures in the Eleventh Census:

DEATHS FROM TYPHOID FEVER IN 100,000 PEOPLE.

(Average of the decade 1880-1889.)

Norway.....	11	Connecticut.....	38
England.....	21	Massachusetts.....	45
Scotland.....	25	New Jersey.....	47
Prussia.....	38	Rhode Island.....	50
Austria.....	72		

In the United States as a whole, in the last census year, there were 335 deaths from typhoid fever in each 10,000 deaths reported—*i. e.*, 3½ per cent. But the disease is much less common in the North Atlantic States than elsewhere in the country. In the so-called registration States, including New York, New Jersey, Delaware and all New England but Maine, only 187 deaths in each 10,000 were due to typhoid fever. This gives a basis upon which the figures that follow may be judged. Any number above 335 is above the country's very high average; any number above 187 is above this region's high average.

Typhoid fever is usually more prevalent in rural districts than in cities. For example, in the rural districts of the registration States, in 1890, there were 208 deaths from it in each 10,000 total deaths, but in the cities only 177. Hence we shall expect to find our cities with a lower rate than the rest of the State. I have found for 1897 and 1898 the proportion of deaths due to typhoid fever in each city of New York having over 25,000 people

in 1890, and also the rate for the remainder of the State. The rates are given in the following table, and for convenience I have grouped the cities into three classes—those having a rate below that of the rural districts, those having about the same rate and those having a decidedly higher rate. The rate in the small towns and country districts was, in 1897, 149, and in 1898, 174 deaths in 10,000:

DEATHS FROM TYPHOID FEVER IN 10,000 TOTAL DEATHS.

Cities having a low rate in 1897.

	1897.	1898.
Auburn.....	43	50
Brooklyn	59	123
Yonkers	76	73
New York.....	77	95
Utica	98	142

—*Medical Review of Reviews.*

The Longevity of the Jews.—From time immemorial physical vigor has been considered a *sine qua non* to longevity. The races that have distinguished themselves in the history of the world for their aggressiveness, their physical prowess and valor, have in the main been people inured to hard manual labor, out-of-door exercise, and active modes of living. The Greeks of old were as assiduous in their devotion to their sports and games as the Englishman of to-day is to his national pastimes of cricket and racing, or the German to his fencing. The Teuton of the nineteenth century, in physical development, surpasses all other races, and rules the world. He is what some one has dubbed a masculine race. He is on the whole also a long-lived race. He works with his hands, with his body, with his legs, and with his brain; in fact, he works altogether. He is not apt to stunt one portion of his physical make-up to aid in developing another portion. In his normal condition he is a country dweller and despises the town. In contradistinction to the Teuton, let us consider the Jew, and we speak now of the masses. Physically, he is poorly developed. Centuries of oppression have stamped out his physical vigor, if not his vitality. The European Jew is undersized, and markedly so. His mental vigor, however, is unimpaired, and probably on the whole is superior to his neighbors'. He is a city dweller and betrays an inherent dislike for hard manual labor or for physical exercise or exertion in any form. He is averse to out-of-door sport. He prefers to live by his brain rather than by his muscle. His chest capacity is limited, and he possesses many other features of physical degeneracy. In fact, his physical make-up is what one would expect to find in a short-lived man. Just here is the surprising feature. Possessing so few of the elements so long considered as necessary to longevity, the Jew is probably the longest lived of any race of people now in existence. His tenacity of life is remarkable. In spite of the social conditions which surround the mass of the Hebrew population the world over, and especially in the very large cities of America, where they form a large percentage of the population, the death-rate among the Jewish inhabitants is

but little over half of that of the average American population. Professor William Z. Ripley, in his papers on the racial geography of Europe in the *Popular Science Monthly*, discusses this question very ably and very fully. He states that if two groups of 100 infants each, one Jewish and one of average American parentage, be born upon the same day, one-half of the Americans will die within forty-seven years, while the first half of the Jews will not succumb to disease before the expiration of seventy-one years. According to Lombroso, of 1,000 Jews born, 217 die before the age of seven years, while 453 Christians, more than twice as many, are likely to die within the same period. In spite of the fact that the mass of the Jewish population of New York city is subjected to the most unsanitary conditions, is extremely overcrowded, breathes the foulest of air, eats much unwholesome food, works longer hours and in the most constrained and unnatural positions in the sweat-shops, their tenacity of life is greater than that of the surrounding Christian population, which lives largely out of doors, is less overcrowded, breathes purer air, and probably is better fed. The immunity of the Jewish population from accident on account of their in-door occupation will account for some of the discrepancy, but on this very account they should be more liable to epidemic and other diseases. This is not wholly true, however. They show an abnormally small proportion of deaths from consumption and pneumonia, which are responsible for the largest proportion of deaths among the American population. Professor Ripley ascribes their immunity from this, as well as from some other diseases, to the excellent system of meat inspection prescribed by the Mosaic law. Hoffman says that in London as much as one-third of the meats offered for sale are rejected as unfit for consumption by the Jews. Probably the temperate habits for which the Jews, as a race, are noted will account to some extent for their longevity. The Jew is temperate in almost all that he does, in all that he eats, and in all that he drinks. He is seldom addicted to the intemperate use of alcoholic liquors. He abstains from certain varieties of meat and those of the richer and more heating kinds, so that his frugal diet, his temperate use of liquors, his abstinence from certain foods which are unwholesome, account for his remarkable freedom from Bright's disease and diseases of the liver, which are largely diseases of intemperance. To sum up, the Jew, in spite of his physical condition and his social surroundings, and by reason of his temperance and sobriety, his frugality and his freedom from accident, contrives, on the average, to live nearly twice as long as his more careless and imprudent neighbors.—*Western Medical Review*.

WM. GEDDES, M. D., 1720 14th St., Washington, D. C., says: ALETRIS CORDIAL has proven, in a case of dysmenorrhea of some years' standing, wonderful efficacious, and has, apparently, given to the sufferer complete relief. This being the first case in which I have had occasion to try the ALETRIS CORDIAL, and sufficient time having elapsed for me to speak of the permanence of the cure, I can say that I propose to continue the use of ALETRIS CORDIAL in all such cases, and wherever a uterine tonic is indicated.

The Treatment of Carbuncles.

BY MILTON P. CREEL, M. D., Central City, Ky.

President Muhlenberg County Medical Society; President Muhlenburg County Board of Health; Member Kentucky State Medical Society; Member American Medical Association.

THERE is no affection falling to the lot of human suffering that is attended with more pain and suffering than carbuncles. Besides the pain which they carry in their train, they are attended with much danger. As a cause of death, upon investigation, we will find that the mortality incident upon this affection is by no means contemptible. In this article I shall not deal with the symptoms or pathology of this affection, that being easily obtained by reference to the standard text-books on surgery.

One of the first considerations in the treatment of a patient with carbuncles is to see that he is well and thoroughly nourished. The importance of this is very manifest when we reflect how much debility is associated with the unfolding of a carbuncle. We should give regularly food of a nourishing character, and we must be satisfied that our patient gets enough to sustain strength. Liquid diet and easily digested solid foods are to be given as regularly as we do our drugs. Milk, predigested foods, and everything which offers no resistance along the line of nourishment will be called into requisition by the wise physician. In this connection I must not omit to mention the value of stimulants in some cases. In patients who are extremely weak, either from the disease itself or from a poorly nourished state of the system existing before the supervention of the carbuncles, it is of the greatest importance to give some stimulant regularly. Whiskey serves us well, but I generally allow the patient to select his own favorite liquor. I give stimulants often enough to keep the volume of the pulse good. There is no rule better than the one Jurgensen lays down; this, he says, "is the rule of consistency." He explains this by saying that stimulants should be given to produce the effect we desire. We must not stand on quantity or dosage, effect on the pulse is what we must obtain; if large doses are requisite and frequent dosage is necessary, we must bring both to bear.

The old writers on surgery and practice advocated the abstraction of blood and the employment of drastic purgatives. It is not worth serious argument to convince the practitioner of the present day that such practice tends to intensify all the serious factors in the case.

I shall now speak of the treatment of carbuncles by drugs and by surgical means. Let me consider the treatment under two heads: First, the internal treatment; second, the treatment by local applications and surgical procedures. By the internal remedies are meant not, of course, foods and stimulants as have already been mentioned, but pure medication to correct the blood dyscrasia which gave rise to the carbuncular conditions. Iodides and sulphide of calcium have been administered, but they are not now relied upon by the profession. Both of these agents have utterly failed to modify

in any way the progress of a carbuncle, and they have been tried thoroughly. Iron has also been tried, and it, too, has failed, and is not now relied upon by the profession. For some months I have relied upon echthol as an internal medicine. I have notes on fifteen cases treated with this agent. I employ it in doses of a teaspoonful every two hours. Its internal administration is the only drug which I can say has ever seemed to abbreviate the carbuncle. It is a corrector of blood dyscrasia, and in the best sense an anti-purulent. In this connection we may say that an anti-purulent is just what our therapeutics has lacked, and it is the first need of the practitioner when he has a carbuncle under his charge. Ordinarily I give no other internal remedy than echthol. This remedy I continue until the patient has been discharged. But as improvement becomes marked and steadfast, I allow the interval between the doses to grow longer. First, he is given the remedy every two hours, then every four as he gets along substantially well. This given in doses of a teaspoonful acts very promptly in giving, as it were, a check to tissue disintegration. Of course, opiates are often called for to overcome the pain present, in some cases to an almost insufferable extent. Papine is the best way to exhibit this agent, since it does not produce interference with the secretions as in the case with other opiates. I give it in doses of a teaspoonful every one or two hours until the patient has obtained relief from pain.

Coming now to the measures which should be employed locally and surgically, let me say that this part of the treatment is as important as the giving of internal remedies. During the time the inflammation is beginning and up to the time when there is sufficient pus in the pointing carbuncle to justify an incision, I employ flaxseed poultices. These soothe and hasten the formation of the pus. An incision is now made, and the pus all emptied; the cavity is scraped and all the dead inflamed tissue is removed. It is then carefully cleaned with peroxide of hydrogen. Then absorbent cotton saturated with echthol is applied to the exposed and adjacent surfaces. This is to be reapplied every four or eight hours, as the case in hand seems to warrant. Each opening is to be treated in this manner, and when we see a case of carbuncle with several centers ready to open we should remove as much of the diseased tissue as possible. Great freedom in the employment of the knife often greatly aids us in bringing about a speedy termination of the case in hand. It is the best thing we can do for our patient to lay the carbuncle open and remove all the diseased tissue, and treat the lesion then with echthol locally. If we employ this agent as our internal remedy, and use it also as a local application, we shall find that our treatment will prove more effective than by methods employed formerly.

I have treated fifteen cases of carbuncles in the manner here outlined, and the duration in each case has been greatly shortened, and the patients naturally got up with less weakness than they otherwise would.

Before employing this agent, a carbuncle meant a long spell and death or long-continued convalescence. The average duration of my cases under this treatment has been ten days.

I now give a brief account of several cases treated by the method I have here advocated :

S. C. T., aged thirty-seven, a miner by occupation. He had been a sufferer from malarial fever for a month or so, but was able to work. He had a carbuncle about the size of the palm of the hand on the neck. There was a great deal of pain, and fever of 101° F. was present. His carbuncle had five heads or points, and seemed to invite incision, they showing the presence of pus. This was thoroughly opened and the diseased tissue was removed as thoroughly as possible. Peroxide of hydrogen was used to clean out the diseased cavity well, and then absorbent cotton saturated with echthol was applied constantly throughout the course of the disease. Echthol in doses of a teaspoonful was given every two hours. This patient began to improve at once, and there was no retrogression. The carbuncle began to take on a healthy action, and this patient was discharged nine days later.

Mrs. B. K. Y., aged forty-seven, had a carbuncle on her face. This was attended with high fever and delirium. This carbuncle had three openings. It was treated as in the former case as regards the local and surgical means employed. Besides these she had to take predigested milk and considerable quantities of wine, so weak was she. She took echthol internally also, in doses of a teaspoonful every two hours.

J. C. P., aged fifty-five, had a carbuncle on the nape of the neck. He had been a sufferer for years with asthma, and was in a low state of health. This patient I regarded as one who would give me serious trouble, and who would in all probability die. The carbuncle was freely opened and treated in the same way as the first case here recorded as regards the surgical and local measures. He was from the first given predigested foods and stimulants, and echthol was the only internal medicine he received except some papine to relieve the pain. This man went along slowly, but he recovered fully, and was able to go about his work seventeen days from the time I first saw him.

These cases are selected because they are ones which would test the efficacy of treatment.—*The Cincinnati Lancet-Clinic, April 29, 1899.*

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W. A. FORSTER, M. D.

Kansas City, Mo.

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AN IMPORTANT OBSERVATION.—Prof. Burney Yeo, of London, states in his latest work on clinical therapeutics, that many of the common forms of diarrhoea are accompanied by excessive acidity of the intestinal contents and that they may be promptly cured by antacid remedies without the use of astringents.

These forms of diarrhoea are associated with the growth and multiplication of micro-organisms, which induce intestinal fermentation and consequent local irritation from decomposing food products.

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NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, JULY 20, 1899.

No. 2

Original Communications.

Treatment of General Suppurative Peritonitis.*

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SOME writers divide inflammation of the peritoneum, due to pyogenic infection, into septic peritonitis and suppurative peritonitis; classifying as septic peritonitis those cases where, owing to the great number and virulence of the germs and the feeble resistance of the tissues, the patient dies before the histologic elements of the parts can be converted into pus; and as suppurative peritonitis those cases where, owing to an attenuated infection and a high degree of local resistance, the patient lives a sufficient time for the formation of pus and the development of other microscopic evidences of suppuration.

Septic and suppurative peritonitis are identical etiologically and pathologically; they differ in degree, not in kind; and the confusion of the terms, together with the artificial division of the immediately fatal cases into one class and the possibly curative cases into another, must explain the conflicting statistics of operative intervention for the relief of the condition, and must reconcile the number of successful cases reported by Abbe, McBurney and Finney with the statement made by Senn that he had opened, drained and washed out the peritoneal cavity in many cases of septic peritonitis and was free to confess without a single successful result: of Weir, that he had never himself been able to save a patient with general suppurative peritonitis and had never seen one saved; and of Grandin, that until recently he had expected death after general purulent peritonitis, and was not at all ashamed of his mortality rate of 100 per cent.

In the last two years I have operated on ten cases of general suppurative peritonitis, with seven deaths and three recoveries, and while my record is an ordinary one and I have nothing new to offer, I wish to give briefly the methods I have finally adopted in the treatment of the condition after a study of the literature of the subject, and a practical experience in the application of the suggestions of other surgeons.

*Read before the meeting of the Association of Surgeons of the Southern Railway, Richmond, Virginia, May 30th, 1899.

I. Early Diagnosis and Prompt Operative Intervention.—Early diagnosis is important, as each hour's delay decreases the patient's chances of recovery by increasing the amount of local and constitutional infection. Operative intervention is essential, as medical treatment has proven inefficient and surgical measures alone offer a rational hope of cure. At best the condition is desperate and the temptation to dodge the responsibility of an operation is great, especially when the surgeon has had a favorable run of cases and is nursing his statistics. But a surgeon is a life-saver, not a record maker, and his courage and ability should be measured rather by his success in preserving life than by his failure in averting death, and here at least the rule should hold: "Operate in every case as soon as a diagnosis is made."

II. Multiple Incisions.—It is impossible to deal with the extensive surface involved through a single incision. The abdomen should be opened first at the point giving the shortest and most direct route to the primary focus of infection, and then other incisions should be made where they will best facilitate thorough cleansing and subsequent drainage of the cavity. In suppurative peritonitis due to disease of the appendix, the original incision should be made in the right iliac region, but in all other instances it should be in or near the median line; above the umbilicus for trouble with the gall-tract, stomach and duodenum; below the umbilicus for disease of the tubes and small intestines. The opening should be large enough to permit of thorough exploration of the underlying viscera, and to give the operator room for easy and quick correction of the pathologic condition found.

The secondary incisions should usually be three in number; one opposite—below or above—the primary incision, and the other two in the posterior lumbar region. If the patient be a woman, an opening into the vagina through Douglas cul de sac will do good service. These incisions can be quickly made by introducing the hand through the first opening and cutting boldly from without on the fingers as a guide. The secondary incisions should be large enough to permit the easy passage of gauze drains, but not large enough to cause danger of bowel protrusion should the patient vomit or cough.

III. Evisceration and Irrigation.—To cleanse the abdomen thoroughly it is necessary to empty it of its contents. The intestines should be drawn through the incision—thus practically disemboweling the patient—enveloped in hot gauze towels and placed to one side. The peritoneal cavity should then be wiped out with moist gauze compresses and the bowels gone over systematically loop by loop and freed from flakes of lymph and other visible evidences of infection. The process should be effected rapidly under a continuous hot irrigation, the water being poured from a pitcher or bottle in the hands of a nurse. Some surgeons use a decinormal salt solution; some prefer a weak solution of boric acid, salicylic acid, acetate of aluminum, or bichloride of mercury. Some employ peroxide of hydrogen, or even pure carbolic acid, neutralized afterwards by the action of alcohol; but plain sterilized water answers every purpose. The object of irrigation is merely mechanical cleansing, and the use of antiseptics is illogical, as they cannot be employed in sufficient strength to be destructive of microbic life without disastrous effect on the vitality of the cells of the part.

IV. Incision of Overdistended Bowels.—In many cases of general suppurative peritonitis the bowels will be found paretic and distended with gas. To crowd them back into the abdominal cavity is to condemn the patient to certain death. They should be incised at several points and the tension relieved. One of the most prominent loops should be taken, separated from

its fellows, held over a basin, and an incision made into its lumen transversely to its long axis at a point opposite the attachment of the mesentery. As soon as the gas escapes the opening should be sutured, the surface sponged off and the operation repeated at other points until the end desired has been accomplished and the bowels can be returned into the cavity without force.

Practical experience has demonstrated that the theoretical dread of invading the interior of the gut is unfounded. It is not what is let out, but what is left in, that kills, and if surgeons would consider less the danger of microbic infection, and consider more the danger of mechanical pressure, statistics would be better.

V. Drainage.—Drainage in abdominal surgery is said to be a confession of incompetency, and its use is usually attended by some little feeling of mortification. In general suppurative peritonitis it is simply an admission of the inadequacy of known measures to secure complete asepsis of the entire peritoneal cavity, and its use should invariably be employed. The extensive dissemination of infection and the lack of an efficient non-toxic antiseptic make surgical sterilization but partially successful, and hope for recovery must be based largely on the vital powers of the organism.

Nature should be aided on the work of neutralizing and eliminating septic material, by the provision for the actual escape of deleterious substances from the peritoneal cavity, and this can be effected by the introduction of gauze strips through each of the several incisions, which not only prevent the wound from closing, but also act as wicks and produce capillary drainage.

Gauze strips act by continuity, not contiguity, of their fibres, and hence should be introduced straight and not folded on themselves. One end of each strip should extend to the lowest level of the portion of the abdominal cavity it is intended to drain, and the other end should project some inches through the cutaneous wound. The absorbent dressing which surrounds the free extremity of the strip, and which is expected to retain the fluid it removes, should be changed as soon as it becomes saturated. Gauze drains should be left in position as long as they are apparently doing good and not obviously doing harm. Usually they are removed partially or completely in from three to five days. Sometimes they are replaced by fresh strips; occasionally the wounds can be closed by secondary sutures.

VI. After-Treatment.—The care of the patient after an operation for general suppurative peritonitis is based on the same principles as that of any other case of abdominal section. Shock is usually profound; and absolute quiet, the application of external heat and the hypodermic administration of small doses of morphine and large doses of strychnia should be directed. I think that the routine use of saline transfusion has become a disastrous abuse of a sometimes useful measure. I have seen the injection of hot salt solution into the rectum do good, and I have seen the prolonged detention and increased chilling of a patient on the operating table from the bungling efforts of assistants to do venous transfusion, produce death.

I have had little experience with the use of antistreptococci serum. Its advocates admit that it is worthless in infection due to staphylococci, gonococci, pneumococci and the almost invariably present bacilli coli communis. Until its status is determined by further clinical experience, it should be used cautiously and with little dependence on its action.

In conclusion permit me to say that success in the surgical treatment of general suppurative peritonitis depends on the rapidity and completeness with which the operation is performed. Haste, breathless haste, should characterize every movement. But while no time should be lost in elaborate

dressings or unessential details, no time should be saved at the expense of the thorough mechanical cleansing of the cavity and the provision for its subsequent efficient drainage. Once begun, the operation should be pushed relentlessly to a satisfactory finish; for it is better for the surgeon's peace of mind to have the patient die on the table in an effort to save him, than to put him to bed in a hopeless condition to die a few hours later, the possible victim of indecision and timidity.

I am conscious that my views on the treatment of general suppurative peritonitis may appear those of an extremist; but the condition is one that requires heroic measures, and statistics prove that apparent radicalism is the truest conservatism. The battle is with a virulent and hitherto victorious foe, and as some one has said, "War is Hell."

Notes on Some Recent Eye Cases in Railway Practice.*

By DUNBAR ROY, A. B., M. D., Atlanta, Ga.

Clinical Professor Eye, Ear, Nose and Throat in Atlanta College of Physicians and Surgeons. Occulist and Aurist to Grady Hospital, Oculist and Aurist to Southern Railway.

IT seems almost impossible to present any article on the eye or ear before a body of surgeons, which will prove of interest to them and at the same time be free from such technicalities as are always of interest to the ophthalmologist. We have held three meetings of the Association and at all three I have appeared before you with a paper which I endeavored to make practical and of interest to all, so that when an invitation was extended to me for a contribution to this the fourth occasion, I was at a loss to know just what subject to bring before you. The large majority of railroad surgeons are frequently called upon to treat the lighter forms of eye injuries which occur in their service, in that they are remote perhaps from him whose work lies exclusively in this special line of work. To know how to handle such cases is always desirable, and in the first paper which I read before this Association some of you may perhaps remember the practical points which were then given. In Atlanta the Southern Railway Shops employ about 500 men, and among this number it is not surprising when you also consider the character of the work, that there almost daily occur slight injuries to the eyes, such as abrasions and the superficial entrance of foreign bodies. Severer injuries sometimes occur both at the shops and on the road, and it is to these latter that I wish to direct your attention to-day.

Theoretical reasoning can never take the place of practical experience.

To me the report of a clinical case is always of interest, because it conveys so much more practical information, and I trust that the report of these few clinical cases may not be without interest and value to you. These reported cases have all occurred within the last two years, and they were almost without exception so severe in character as to require the most minute care in every detail.

Before narrating these I wish to say but a few words in regard to traumatic injuries of the eyeball.

There are two results which are liable to follow after severe injuries

*Read before the Association of Railroad Surgeons of Southern R. R. in Richmond, Va., May 29th and 30th.

about the eye, and the ones for which the ophthalmologist has the more concern, viz :

1. Loss of vision in the injured eye, and which frequently carries with it the eyeball itself.

2. Sympathetic ophthalmia in the uninjured eye.

To obtain a successful result in the first case often requires skill and judgment, while in the second the result is often beyond our control, since its pathology is still enveloped in darkness.

My own experience has been that patients almost without exception had rather retain a scarred eyeball in the orbital socket, even though its vision was only the recognition of daylight from darkness, than to have an empty socket occupied with an artificial eye. People have in general a great aversion to the removal of the slightest appendage from the body which naturally belongs there. Then again, in damage cases against the railroad, an empty orbital socket shown to the jury will have far more influence in deciding for the plaintiff than if you showed even a shrivelled eye.

For this reason I have long ago learned to lean towards the conservative side in my endeavor to save an eye after a severe traumatism, and try by every effort to retain the ball from an atrophic state. With these preliminaries, I shall give in detail the histories of the cases coming under my care, although in some instances the final results could not be traced.

CASE I.—W. F., boiler-maker, white, age 45, sent down from Knoxville by Dr. S. R. Miller, for consultation. From the patient and Dr. Miller's letter the following history was elicited: Three days ago, while working in the shops at Knoxville, a piece of iron casting upon which he was working, flew up and struck him in the right eye. The piece, he said, was as large as his thumb, and fortunately, therefore, did not lodge in the eye. The shock to him at that moment was very severe and he felt as if his eye was entirely destroyed. He was carried home in a carriage and soon after he was seen by Dr. Miller. From the latter's letter I ascertained that instillations of atropine solution and cold applications externally were used, which succeeded in allaying his suffering to a marked extent. Three days later he presented himself at my office. *Left eye* clear and free from all irritation. Vision normal. *Right eye.* In the lower outer quadrant of the cornea there was a rupture about 5 mm. in length, extending very near to the sclero-corneal margin. Into this rupture the iris was prolapsed and incarcerated so that the pupil had a pear-shaped contour, the apex being at the point of rupture. No signs of infection, but firm closure at point of rupture. The anterior chamber was naturally shallow. The iris was projecting just a little above the cornea at the seat of rupture. The lens was almost opaque. Vision was hardly more than the recognition of objects moving just in front of eye. Tension good. There was some circumcorneal injection and some photophobia, but beyond this the patient complained of scarcely any pain. Patient was advised to report immediately to Knoxville under the care of Dr. Miller. I wrote the doctor, advising the continued use of atropine instillations and the application of hot fomentations if there was any pain. Also advised firm compression-bandage to be worn constantly for the purpose of producing a smooth flat cicatrix. Two weeks later the patient was seen again. There was a slight irritation and some photophobia. The good firm cicatrix had formed at the sight of rupture and prolapse. The lens was in about the same condition. Vision was practically nil. The patient wanted to return to work, but was advised that a rest of at least two weeks longer would be better. He

returned to Knoxville, under date of May 20th, 1899, Dr. Miller, at my request, writes to me as follows:

"I beg to say that Mr. F. was under my care from January 14th to February 26th, 1897, at which time I discharged him with instructions to return to work in a week or two, which I am informed he did. I learned about a year thereafter, that he had had his eye removed. I do not know when he had it done, or who did it. I requested him on two occasions to come to my office and give me a report of his case, but I have not seen him since."

It would be interesting to know of the enucleation.

CASE 2. The following case shows where strict attention to diagnosis is absolutely necessary; otherwise, we may be led astray by the patient's statements.

D. M., colored, age 23, engine cleaner at the Southern Railroad shops, was sent to me by the Master Mechanic on June 18th, 1897. From the patient the following history was obtained: On the 25th of the previous month he was accidentally struck in the left eye by a piece of coal, while at work. The eye became very sore, but he used salt water and the eye became better. Three days ago it became much worse, and he attributed the whole condition to the previous injury. On examination, I found the whole eye very much congested, showing quite a severe conjunctivitis with a muco-purulent discharge. Patient did not complain. The cornea was closely examined without result. The pupil was round and responded readily to light. On averting the upper lid there was seen towards the free border an abraded ulcerous looking excavation. On palpation there was an indurated, parchment-like sensation. Over its surface there was a good deal of secretion. There was some enlargement of the pre-auricular glands. The diagnosis of chancre of the upper lid was made, but to be more certain he was sent to Dr. Bernard Wolff, a dermatologist, who confirmed the diagnosis. The railroad company suspended the patient for a time. Later he developed iritis, which readily yielded to anti-specific remedies. In time he returned to work, and I have not seen the case since.

CASE 3.—B. M., white, aged 21, machinist at shops, presented himself at my office on October 13th, 1897:

History.—One hour ago the patient was chiselling some iron, when a particle flew up and struck the left eye. There was immediately severe pain and absolute blindness. Patient doesn't know whether or not the particle of iron entered the eyeball.

Examination. A linear rupture about 5 mm. in length was seen at the inner lower quadrant of the cornea of the left eye. The anterior chamber was filled with blood and absolutely collapsed. There was no prolapse of the iris. The patient seeming to think that the piece of iron was still in the eye, the electro-magnet was tried without any successful results. A curved point of a Hirschberg magnet was used through the original rupture. Not being successful in this attempt, the eye was cleansed, atropine instilled and a compress-bandage applied. This was all the treatment used with the exception of seeing that his bowels were kept well open, a precaution which should always be taken. From this time on the patient was seen every day, but as was expected from the large amount of intra-ocular hemorrhage the eye gradually went into phthis bulbi. At no time was there much pain or signs of infection. There was never on the other hand a symptom of even sympathetic irritation.

CASE 4. L. T. W., white, age 25, boiler maker at Southern shops. Patient was brought to my office.

History.—Two hours ago while cutting off the ends of some iron staves, a piece flew up and struck the right eye. His eye pained him severely. On examination I found a rupture of the globe about 7 mm. long in the upper and outer quadrant of the cornea and extending 3 mm. beyond the sclero-corneal junction. There was no protrusion of the iris although it was lacerated. Blood filled the whole of the anterior chamber. The electro-magnet was not used, as the patient was confident the piece of iron was not in the eye. Vision at that time was simply perception of light. The eye was washed with 1-5000 bichloride solution, atropine solution instilled into the eye and a compress-bandage applied. No further treatment than the above was used. The wound healed nicely without any signs of infection. The iris became incarcerated, which changed the size and contour of the pupil. Two-thirds of the iris responded to atropine. The eye gradually healed without much irritation. Two months later the patient could count fingers at three feet if held to the right. Tension of the eye good. At present the eye is about the same. An iridectomy would probably improve the vision, but the patient will not consent for anything to be done.

CASE 5.—J. D., colored, age 37, blacksmith helper at the shops, presented himself at my office Oct. 19th, 1897.

The following was the history:

About one and a half hours ago, the patient was hammering on a piece of steel when a large piece flew off and struck the right eye. Immediately afterward there was considerable pain and bleeding with dimness of sight.

Examination.—There was a slight incised wound on the upper lid of right eye. There was a large amount of ecchymosis in the bulbar conjunctiva, especially on temporal side. In close examination no injury could be seen on the cornea. The pupil reacted to light accommodation and both pupils were seemingly the same size. Vision, counting fingers at one foot.

The pupil was dilated with atropine in order to examine the fundus, it responding readily to the mydriatic. No fundus reflex could be seen with the ophthalmoscope. By oblique illumination with a strong convex lens, blood could be seen behind the lens, making the diagnosis one of concussion of the ball with resulting hemorrhage into the vitreous. There was no pain and no inflammatory symptoms. Tension was practically normal. The treatment consisted in the installation of atropine solution with the use of hot fomentations, and iodide of potassium internally to aid in the absorption of the blood. The subsequent history was that the blood in the vitreous became organized into bands of tissue and there resulted a detachment of the retina in the upper portion. This case adds much to the theory that detachment of the retina is due to contraction vitreous. There was slight irritation about the eye for several months. Finally the lens became opaque, but the tension of the eye remained normal. Such was the condition of the eye when last seen, all irritation having disappeared.

CASE 6. W. H., white, age 23, fireman on passenger train. Patient presented himself at my office late on the afternoon of the 15th of last month. He gave the following history:

On that morning while firing on the north-bound passenger train his right eye was injured by a piece of coal just before they arrived at Gainesville, Ga. The injury was so severe that they sent him back to Atlanta. He was breaking coal at the time when a piece flew up and struck his eye. It pained him considerably.

Examination at Office.—No contusion of the lids. Eyeball of right eye much congested. Complains of some pain. Vision equalled fingers

when held very close to the eye. Vision in left eye normal. On close examination a rupture was seen extending nearly the whole width of the cornea across the center of the pupil, downward and outward. Anterior chamber collapsed. Inside of the chamber, at its lower part, partly on the iris and partly on pupillary margin, a piece of coal could be seen, triangular in shape, about 3 mm. in diameter. The wound was still open and the aqueous escaping. Following a general rule, which I always practice, and that is to remove a foreign body from the interior of the eye, if possible, through the original wound, the eye was cocainized and under artificial light the extraction was attempted. Finding that the forceps were unsuccessful, I introduced a Tyolls hook in and behind the piece of coal, making gentle traction from below, so that when it appeared at the wound it was grasped with forceps and removed. The wound and anterior chamber were examined closely for any broken fragments but none could be found. Atropine was instilled and the eye washed and bandaged. The iris did not seem to be lacerated. Next day the wound had healed and the pupil had responded to the atropine. Patient had a good night's rest without an anodyne. From this time on, the patient still being under treatment, the wound gradually healed, the irritation becoming less. The scar at the point of the wound interferes quite a little with vision, but I trust it will grow less pronounced. At the time my chief fear was injury to the lens and a resulting cataract, but so far there has appeared no sign of this. Tension at present is good and vision equals 20-100. There are no discoverable signs of cataract and the corneal irritation seems rapidly subsiding.

These cases are reported simply to show what character of injuries of the eye we sometimes have to treat as railroad surgeons, and also to show what results we may probably expect. When an eye is injured, naturally the first thing the patient will ask the surgeon is, "Will my sight be lost?" In all severe injuries, or even in such as appear trivial at the time, the answer to such a question is difficult to make, and the surgeon should never commit himself in too positive a manner. Nature is a wonderful restorer and often the results are far better than we could possibly anticipate, yet on the other hand ill results sometimes come when least expected.

What are the causes of blindness as most frequently found in severe injuries to the eye?

Usually it is due to some interference with the conducting media and less frequently to some injury of the perceptive apparatus. Let us note some of the pathological conditions in the former.

If we have a severe laceration of the cornea we are almost sure to have some involvement of the iris. With this laceration and contusion we cannot always foretell how much white scar tissue will be left, especially if there should be superadded the element of infection. Then again it largely depends upon which portion of the cornea the injury occurs, since slight traumatism just over the pupil will often interfere, where much severer ones at the periphery will occasion but slight diminution of vision. If to this corneal laceration there is added a prolapsed iris and a consequent distortion of the pupil, the element of vision is again a very uncertain quantity.

After the iris comes the lens, and so long as this remains transparent we have nothing to fear, but the difficulty is we can never tell when it will become opaque from the severest injury down to the slightest concussion of the eye.

Traumatic cataract is the one thing that ophthalmologists ever fear after injury to the eye.

After the lens comes the vitreous chamber, and here many of the changes take place which will finally interfere with distinct vision. The great danger here is hemorrhage from some of the surrounding tissues, more especially the ciliary region, which is rich in blood supply. When such occurs we cannot prognose the results. I have seen blood almost entirely disappear from this chamber, leaving only a few floating bodies, while in others I have seen it become organized into fibrillary membranes and remain for life. Next comes injury to the choroid sack, as rupture, or to the retina, such as *commotio retinæ*. Here, in some instances, all the tissues I have mentioned may escape injury only to find a deep rupture at the choroid. If the rupture occurs across the line of one of the blood-vessels we may have hemorrhage super-added, and such always complicates matters.

A "shaking up" or *commotio retinæ*, or a rupture of the choroid will interfere with vision in certain areas, corresponding to the seat of rupture. Such will never cause complete blindness, and blindness from *commotio retinæ*, is most liable to be temporary. Lastly comes the optic nerve, which is seldom involved, unless there should be extensive traumatic changes in the bones of the face and skull.

After the loss of vision, which is the important thing in the mind of the patient, comes the subject of sympathetic ophthalmia, which to the ophthalmologist, must rank first of all.

This subject is still subjudice, and we are far from its solution, while so many clinical facts stare us in the face.

In none of the cases reported in this paper, was there even sympathetic irritation, although in three of them such a pathalogic condition was by no means out of the question.

As was said in the beginning of this article, I never believe in sacrificing an eye if it is possible to retain even a globe of proper tension, especially if such is to be shown before a jury and you must in a measure assume the whole responsibility.

It has been almost conclusively shown that even a rupture in the so-called "dangerous region," the ciliary, is usually harmless unless there is infection of the wound.

If such then be the case, the most rigorous antiseptic measures should always be instituted just as soon as an injured eye comes under your care. Injuries plus the entrance of foreign bodies into the interior of the eye, add much to the gravity of the case, although there are numerous cases on record where foreign bodies have remained in the eye for years without causing any untoward symptoms.

The question of removal of foreign bodies from the eye is a large one and would occupy too much time in an extended discussion to-day; while it is true that some foreign bodies may remain harmless in the eye, it is equally true that they are a constant menace to this organ and should always be removed if possible and thus try to save the eye.

The harmlessness of the presence of any foreign body in the interior of the eye, as has been shown by Prof. Leber and others, is dependent largely upon its septic condition and chemical composition. Foreign bodies have been known to remain quiescent in the eye for a period of twenty years and then to have started up a sympathetic irritation. Taking all the things into consideration, an eye is much safer with a foreign body *out* of the globe. Since the introduction of the electro-magnet there have been many eyes saved which would undoubtedly have been lost had not such been used. For instance, Hirschberg, of Berlin, reported in 1890, a series of 100 cases in

which he had used the electro-magnet with 13 successes, while prior to the use of this instrument he had not had one good result.

Rouquette, in 1893, laid down a general principle from his clinical experience which is in accord with that of a great many others, namely: that foreign bodies which are oxidizable become encysted after entering the eye and for awhile cause no inconvenience, but in time inflammation may be provoked by oxidation. Non-oxidizable bodies as glass, silica, lead, etc., frequently lead to suppuration.

Hurziler in France has collected 313 cases of extraction, or attempted extraction, with the electro-magnet, of particles of iron from the vitreous, published by different authors. From these statistics it was found that extraction was successful in 203 cases, that is 64.85 per cent. A certain degree of vision was only preserved in 69 cases, that is about 22.04 per cent. The exterior form of the eye was preserved in 35 other cases, 17.24 per cent. These observations were made in 1896, but like in everything else surgical experience is obliged to make better statistics. Yet even such a report shows that many cases can be saved by means of the electro-magnet. Time does not permit a further discussion of this interesting subject, but I will say, in passing, that the safest method, as Hirschberg says, is propholaxis. By this I mean that corporations who employ a large number of men in foundry or boiler shops, should provide each man with spectacles of plain glass and thus preserve eyes from traumatic damage. It would save numerous eyes and at the same time it would be a great economy in the payment of indemnities due to such accidents.

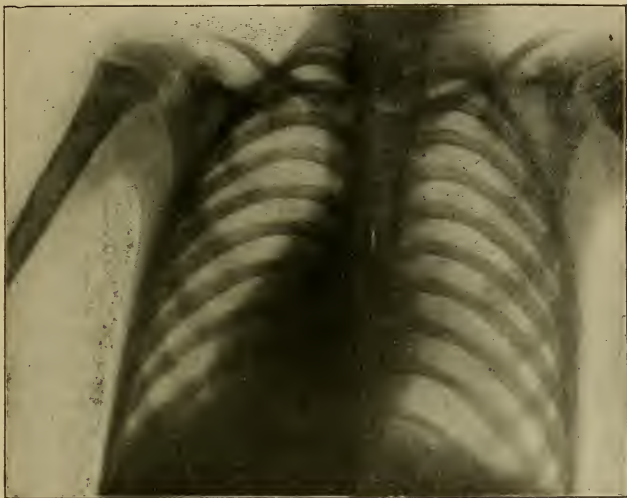
A few words now in regard to the treatment of ruptures of the eyeball with prolapse of the iris. Early in my clinical work I noticed that ulcers of the cornea, which perforated with an attendant prolapse of the iris, usually immediately healed and the virulent infection rapidly subsided, the eye usually healing with a firm, white cicatrix through the prolapsed iris. From this I was led to treat small prolapses of the iris from traumatic causes in the same way, simply using firm compress-bandages with either eserine or atropine. In 1897 Dr. Herman Knapp, of New York, a man eminent for his ophthalmological work, published an article in his archives on "Conservative Treatment of Certain Prolapses of the Iris." He had studied the subject in the laboratory, and as a result of this he found, while studying the action of pathogenic bacteria, on perforating wounds of the cornea, that "corneal tissue adjacent to the wound was densely infiltrated with staphylococcus pyogenes, whereas the tissue of the prolapsed iris was free from them." This led him to make the following rule for his own guidance and which clinically he has adopted ever since: "Never cut or burn off protruding iris in any infective conjunctival corneal disease." He also says, "I do not remember a single case of sympathetic ophthalmia from any kind of prolapse, if the iris had not been wounded by any accident or by the hand of the surgeon." Such a rule as this I have followed now for several years and have never had cause to regret it. My own rule is never to touch a prolapsed iris through the cornea unless it is so large as probably to lead to an occluded pupil. My rule is to put on a firm compression-bandage in conjunction with the use of instillations of atropine and eserine and thus allow a firm, smooth cicatrix to form in time through and around the prolapsed iris. Sometimes there results a cystoid cicatrix, but even this is often better to have than an infected eye with probable loss of the whole globe. There is a great deal more which might be said on such an interesting subject but this paper has already reached sufficient length to warrant me in relieving your patience.

Report of a Case of a Foreign Body in the Esophagus, Located by Means of the X-Rays and Removed with a Swivel Coin-Catcher. *

By JOHN H. GIBBON, M. D.

DURING a recent substitution for Dr. R. H. Harte at the Pennsylvania Hospital, the following case came under my care :

P. Y., a boy, aged 5 years, was admitted to the hospital March 11th, 1899, and was discharged March 18th, 1899. Two weeks before admission the patient swallowed a campaign button, such as is worn in the lapel of the coat during political campaigns. A physician was sent for, but



Skiagraph of a Campaign-Button in the Esophagus. (Stewart.)

could not see or feel the button, and as the child presented no urgent symptoms, the case was put upon expectant treatment.

As time went on, swallowing became more difficult, and the patient was only able to take small amounts of liquid food. He lost a great deal of flesh, and became pale and peevish.

On his admission to the hospital, the skiagraph, which is here reproduced, was made by Dr. Stewart. It shows the button to be lodged opposite the first and second dorsal vertebrae. The day after admission the child was etherized and the button was removed with the swivel coin-catcher. There was some little bleeding following removal, and the child vomited a little blood once afterward, but no other symptoms developed, and the patient was discharged four or five days later.

This case shows the great advantage of the X-rays. It enabled me, in this particular instance, to observe the exact location and position of the foreign body. As two weeks had elapsed since the lodgment of the button, I feared lest some ulceration of the esophagus might have occurred and that

*Read April 26, 1899.

the removal might cause further injury. I tried first to use a pair of esophagus forceps, but the curve was so obtuse that I could not get the blades down to the button. I thought the forceps preferable to the coin-catcher because with the former I could easily turn the button loose, if, for any reason, I found it necessary to do so. However, it could not be used and the use of the latter instrument became a necessity.

Although I thought I had utilized the X-rays to the greatest advantage, I found, in reading the *British Medical Journal*, for April 1st, a case of this kind, reported by Mr. Roxburgh, who not only located the foreign body, which in this case was a halfpenny, by means of the fluorescent screen, but, by placing his patient, a child of five, on a board table and having the tube underneath the table and the fluorescent screen between himself and the patient, he was enabled to observe each step of his operation, from the first introduction of the forceps to the grasping and removal of the halfpenny.

The most likely place for the lodgment of a foreign body in the gullet is first at its beginning, behind the cricoid cartilage, next, where it is crossed by the left bronchus, and lastly, at the cardiac opening of the stomach.

When a body is lodged in the first position, the danger accompanying the condition is obstruction of respiration. Total obstruction to passage of food has occurred, and also ulceration into neighboring organs, more particularly into bloodvessels. Cases have been reported of ulceration into the aorta, accompanied by fatal hemorrhage.

When removal cannot be accomplished by use of the finger, of the esophagus forceps, or of the coin-catcher, and when the body cannot be forced into the stomach, esophagotomy becomes necessary, and particularly would this operation be advisable if there was evidence of ulceration of the esophagus from the prolonged presence of the foreign body. The preferable operation is through the left side of the neck, although several surgeons have attacked the esophagus through the posterior mediastinum when the foreign body was low down. Ashhurst collected 145 cases of esophagotomy, through the neck, with only thirty-nine deaths, a mortality probably greatly reduced by more recent improvement in aseptic technique.

SIGHT-SEER'S HEADACHE.—There are, no doubt, very many important uses for antikamnia, of which physicians as a rule may be uninformed. A five grain antikamnia tablet prescribed for patients before starting on an outing—and this includes tourists, picknickers, bicyclers, and in fact, anybody who is out in the sun and air all day—will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. This applies equally to women on shopping tours, and especially to those who invariably come home cross and out of sorts, with a wretched "sight-seer's headache." The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten-grain dose. Every bicycle rider, after a hard run, should take two five-grain tablets on going to bed. In the morning he will awake minus the usual muscular pains, aches and soreness. As a cure and preventive of the pains peculiar to women at time of period, antikamnia is unequalled and unaccompanied by habit or unpleasant after-effect. If the pain is over the lower border of the liver, or lower part of the stomach, or in short, be it headache, side-ache, backache, or pain of any other description caused by suppressed or irregular menstruation, it will yield to two five-grain tablets. The dose may be repeated in an hour or two, if needed.

North Carolina Medical Journal.

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Editorial.

RAILWAY INJURIES.

We remember some years ago to have heard a medical missionary from China make the statement that traumatic cases were comparatively rare in that country, as there were few railroads. From an advance abstract of the report of the Inter-state Commerce Commission for the year ending June 30th, 1898, giving among other interesting matter, detailed statistics of the number of persons injured by railroads during the previous twelve months, one can realize what an important part these highways of commerce and of travel play in adding to the vicissitudes of human life.

The total number of casualties for the year, were 47,741; of this number, 6,859 were killed and 40,882 injured. Of the number killed 1,958 were employes of the railroads, and 31,761 of those wounded were employes. The number of passengers killed during the year was 221, and the number injured 2,945. That class known in railroad nomenclature as trespassers were peculiar sufferers, some 4,000 being killed, and as many more wounded, showing that the process of riding the "blind baggage" is not a very salubrious method of travel, for the greater proportion of the killed and injured classed under the head of trespassers belong to the tramp genus, with their well-known liking for free transportation and its attendant hazards. This class also includes the individuals, and they are not uncommon, who after having partaken too freely of alcoholic stimulants, exhibit an overpowering tendency to regard the railroad track as a suitable place for a walk, "perchance to sleep."

The summaries containing the ratio of casualties show that one out of

every 447 employes was killed, and one out of every 28 was injured. One passenger was killed for every 2,267,270 carried, and one injured for every 170,141 carried.

Healing by First Intention and Disinfection of the Hands.—Dr. Theodor Kocher (*Boston Med. and Surg. Jour.*) contributes an exhaustive paper on this subject, in which are discussed the bearing of the hands of the operator and his assistants and the various recent ideas in preventing contamination of the wound by this means. The influence of various kinds of gloves as recommended by different surgeons is considered. Though the author in nearly all of his operations during the past year has used the cotton gloves recommended by Mikulicz, he concludes that the most desirable is the impermeable rubber glove suggested by Halsted. Of 339 aseptic operations during the year, five died, but none of these deaths was due to infection going out from the wound. Of the remaining 334 cases all but three, or 2.3 per cent. healed absolutely by first intention. In all but 20 cases the cotton gloves were worn. Catgut was used in ten cases. There were only three cases in which infection took place during the operation, and in two of these catgut had been used for ligatures. The following conclusions are reached in regard to the disinfection of the hands and the wearing of gloves:

(1) *Either*: Do use sterilized rubber gloves for every operation when you wish to be quite independent as to the form of your nails, the touching of everything you like, and the liberty to wash or not to wash your hands, and when you can spend plenty of money. Put your covered hand from time to time in a strong antiseptic solution (best, two per-cent. sublimate) during a long operation, if you wish to be very careful.

(2) *Or*: Do never wear gloves for operations, do what you like between your operations, but poison yourself every time before you operate by brushing and bathing your hands for ten minutes in a strong, hot sublimate solution after thorough washing and cleansing with hot water, soap and alcohol for fifteen minutes. Repeat a short antiseptic ablation frequently during a long operation, when you wish to be very careful.

(3) *Or*: Go the golden middle-way; avoid touching with uncovered hands any infective or septic material *between* the operations or wash it carefully away at once, cut your nails as short as possible, brush your hands thoroughly with hot water, soap and alcohol (85 to 95 per cent.), avoiding any poisonous disinfectant before you operate, and, if you wish to be very careful, put cotton, silk or, best, rubber gloves on when you touch the threads for ligatures and sutures and when you have to tear the tissues much and to rub your fingers into the depth of a wound.

(4) But don't forget that the healing of the wounds *per primam intentionem* does not depend exclusively upon your hands, but also upon the same preparation of the patient's skin, upon sterilization of everything else coming in contact with the wound and its surroundings, upon complete arrest of bleeding, exact closing of the wound by sutures, or avoiding accumulation of fluids in cavities, necessarily left, by drainage, and, last but not least, upon the use of *anti-septic* threads for ligatures and sutures, as long as impermeable threads are not yet invented.

News and Items.

Of the 486 foreign matriculates in the medical schools of Paris, only one is from the United States.

A woman in Brooklyn recently took a 300-mile bicycle ride in twenty-nine hours. She has announced her intention to ride 400 miles in forty-eight hours.

The marriage of Dr. Alfred Stillé, ex-president of the American Medical Association, and emeritus professor of the University of Pennsylvania, to Miss Catherine A. Blakiston, of Chestertown, Maryland, occurred June 14. The groom is eighty-five and the bride fifty-eight.

A short time ago an ex-broker of New York City filed a petition of bankruptcy with liabilities at \$29,357 and no assets, except clothing worth \$75. Among his debts were \$1,600 owed to twenty-eight doctors and \$350 to three dentists.

Beginning with August the *Louisville Journal of Surgery and Medicine* and the *Louisville Medical Monthly* will be consolidated, and issued under the name of the *Louisville Monthly Journal of Surgery and Medicine*.

The "Journal of Tuberculosis," edited by Karl von Ruch, B. S., M. D., Asheville, N. C., is a quarterly of unusual interest, in view of the present status of the question. We have received the second number. A. H. McQuilken, Asheville, N. C., is the publisher, and the annual subscription is \$1.00.

"Hippocratic Oath."—The Arlington Chemical Company is sending out a very unique souvenir in the shape of an engraving of the famous "Hippocratic Oath." Properly framed it makes a very nice ornament for the physician's office.

Changes in the Faculty of the Medical College of Virginia.—At the meeting of the Board of Visitors, Dr. H. H. Levy, who has for many years filled the chair of Physiology, was transferred to the chair of Practice of Medicine, made vacant by the recent resignation of Dr. John N. Upshur.

Morostine entitles a case he describes in *Wratsch* (No. 25, 1898), "Martyrology of a Patient." The adnexæ were removed from a young woman, in 1894, and during the years since she has returned to the hospital a number of times with a succession of phlegmons and fistulæ in thigh, abdomen and vagina. She at last returned in perfect health, bringing with her a hemostatic forceps 12 cm. in length, which had been spontaneously evacuated per anum after a sojourn of four years in her abdomen.

The American Electro-Therapeutic Association will hold its Ninth Annual Meeting at Washington, D. C., September 19th, 20th, 21st, 1899. The President, Dr. F. B. Bishop, has appointed the following Committees of Arrangements:

Drs. D. Percy Hickling, Chairmau; Jos. Taber Johnson, G. Lloyd

Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the headquarters, and special rates have been made for all interested in this meeting.

Drs. G. W. and J. L. Kernodle, of Elon College, N. C., have purchased the justly celebrated Grayson White Sulphur Spring, of Carroll Co., Va., and are building a large hotel for the accommodation of persons seeking health or pleasure. The building will be open August 1st. As a remedy for dyspepsia and rheumatism the waters of these springs have won their laurels.

A Step Backward in Tennessee.—The legislature in Tennessee recently amended the medical-practice law so as to admit to practice without examination all graduates of reputable medical colleges in that State. Graduates of colleges outside the State must pass an examination before obtaining a license. The legislature will not meet again for two years, so there is ample opportunity for increasing the stock of incompetents in the State before a new restriction law can be passed. One of our Tennessee contemporaries says that the law was amended because some of the examiners had threatened to pluck all the graduates of a certain local medical school who might appear before them. A poor remedy for a bad disease.

MOCKSVILLE, N. C., July 17th, 1899.

Editors of North Carolina Medical Journal, Charlotte, N. C.

SIRS: I write this to ask the profession to make some investigations as to whether or not those who are raisers and *curers* of tobacco are subject to phthisis. I have never known a tobacco *curer* to have or die of phthisis. As you doubtless know, the barns are made very tight and often heated to 180 or 200 degrees. Now, has this hot air impregnated with the vapor from the green tobacco anything to do in preventing the disease by destroying any spore, germ or tuberculous deposits.

Respectfully,

M. D. KIMBROUGH, M. D.

[Doctors in tobacco sections, let us hear from you in regard to this matter.—EDS.]

University of Pennsylvania.—Dr. James Tyson has been elected Professor of Practice of Medicine; Drs. John H. Musser and Alfred Stengel Professors of Clinical Medicine, and Dr. Gwilym G. Davis, Assistant Professor of Applied Anatomy.

J. J. GRANT, M. D., Monticello, Fla., says: I find nothing in the *materia medica* to equal ALETRIS CORDIAL in uterine diseases. I have used it in a very obstinate case, which outstood several important remedies. When I put the patient on ALETRIS CORDIAL every diseased symptom disappeared in a week's trial. I have used it in several cases, and can, therefore, say, that it is an active and powerful agent for diseases of the womb.

Book Reviews.

The following list of valuable publications, by W. B. Saunders, Philadelphia, are now in press and will be reviewed as soon as they appear :

The International Text-Book of Surgery. In two volumes. By American and British authors. Edited by J. COLLINS WARREN, M. D., LL.D., Professor of Surgery, Harvard Medical School, Boston ; Surgeon to the Massachusetts General Hospital, and A. Pearce Gould, M. S., F. R. C. S., Eng., Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Medical School ; Surgeon to the Middlesex Hospital, London, England. Vol. I. Handsome octavo volume of about 950 pages, with over 400 beautiful illustrations in the text, and 9 lithographic plates.

Heisler's Embryology. A Text-Book of Embryology. By JOHN C. HEISLER, M. D., Professor of Anatomy in the Medico-Chirurgical College, Philadelphia. 12mo volume of about 325 pages, handsomely illustrated.

Kyle on the Nose and Throat. Diseases of the Nose and Throat By D. BRADEN KYLE, M. D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia ; Consulting Laryngologist, Rhinologist, and Otologist, St. Agnes' Hospital. Octavo volume of about 630 pages, with over 150 illustrations and 6 lithographic plates.

Pryor—Pelvic Inflammations. The Treatment of Pelvic Inflammations through the Vagina. By W. R. PRYOR, M. D., Professor of Gynecology in the New York Polyclinic. 12mo volume of about 250 pages, handsomely illustrated.

Abbott on Transmissible Diseases. The Hygiene of Transmissible Diseases: their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. ABBOTT, M. D., Professor of Hygiene in the University of Pennsylvania ; Director of the Laboratory of Hygiene. Octavo volume of about 325 pages, containing a number of charts and maps, and numerous illustrations.

Jackson—Diseases of the Eye. A Manual of Diseases of the Eye. By EDWARD JACKSON, A. M., M. D., late Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine. 12mo volume of over 500 pages, with about 175 beautiful illustrations from drawings by the author.

The *International Text-Book* will present a complete treatise on the theory and practice of surgery in its most advanced aspects. There is a real need among practitioners and advanced students for a work on surgery, encyclopedic in scope, yet so condensed in style and arrangement that the matter usually diffused through four or five volumes shall be given in one-half the space and at a correspondingly moderate cost.

In his *Pelvic Inflammations*, Dr. Pryor directs the attention of the general practitioner and specialist to a surgical treatment of the infectious pelvic diseases of women. The subject is a most important one, insomuch as inflammatory lesions constitute the majority of all pelvic diseases.

Kyle on the Nose and Throat, *Heisler's Embryology*, and *Jackson's Diseases of the Eye* are practical text-books for students, written by men of long and successful experience as teachers of these branches.

Special features of Dr. Kyle's book are the logical classification of the diseases, the modern pathology illustrated with new and original cuts, and the extended consideration given to details of treatment.

Abbott on Transmissible Diseases, is an important and timely contribution to the literature of preventive medicine.

Progressive Medicine, Vol. II.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 472 pages, 56 illustrations and 3 full-page plates. Lea Brothers & Co., Philadelphia and New York.

The second volume of *Progressive Medicine* is to hand, and the favorable opinion formed of the first issue is amply justified by the present one. This method of presenting the progress of scientific medicine is highly satisfactory, the style is flowing and easy and devoid of anything like a dry catalogue of isolated facts or theories presented to the reader in a crude or ill-digested form. The editor is certainly to be congratulated upon his success in avoiding this defect, to which a work of this character is peculiarly liable.

We call attention to the following carefully prepared and exhaustive papers contained in the present volume :

Surgery of the Abdomen, including Hernia. By William B. Coley, M. D., of New York City.

Gynecology. By John G. Clark, M. D., of Philadelphia.

Diseases of the Blood, Diathetic and Metabolic Disorders, Diseases of the Spleen, Thyroid Gland and Lymphatic System. By Alfred Stengel, M. D., of Philadelphia.

Ophthalmology. By Edward Jackson, M. D., of Denver.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By PROF. LUDWIG EDINGER, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition by WINFIELD S. HALL, Ph.D., M.D., Professor of Physiology in the Northwestern Medical School, Chicago, Assisted by PHILO LEON HOLLAND, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and EDWARD P. CARLETON, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 Engravings $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xi-446. Extra Cloth, \$3.00. THE F. A. DAVIS CO., PUBLISHERS, 1914-16 CHERRY ST., PHILADELPHIA.

The present volume is the latest translation of Prof. Edinger's work, the former translation being made by Prof. Riggs. The work, which was originally intended mainly for medical men, now contains matter which is most necessary to the general student of neurology or of physiological psychology. The author explains in his preface that by comparing animals low down in the vertebrate series the attempt is made to determine where particular structures appear, how they vary, and what functions they may perform at different stages of their development. It has also been attempted to determine what belongs to each *separate* part of the nervous system as *essential* and *fundamental*. It is an attempt in which the author believed himself justified, in view of the fact that he had been occupied ten years in studies in the realm of comparative neurology.

A Text Book of Anatomy. By American Authors. Edited by FREDERIC H. GERRISH, M. D., Professor of Anatomy in the Medical School of Maine at Bowdoin College. In one magnificent imperial octavo volume of 915 pages with 950 engravings in black and colors. Cloth, \$6.50, net; flexible water-proof binding for the dissecting table, \$7.00, net; full leather, \$7.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

We feel safe in saying that we have never reviewed a work with more pleasure than has been afforded by the above volume. Gerrish's Text-Book of Anatomy has several features of salient interest to American physicians. While the profession in America has produced many great works in other branches of med-

icine, we have heretofore depended largely upon foreign writers for text books on anatomy. The present volume, however, is written entirely by American authors, professors of leading colleges. Another divergence from ordinary works upon this subject is the elimination of the large mass of practically useless material usually found in text-books on anatomy. This has simplified the subject and added much to the conciseness of the text, without, so far as we have been able to discover, the omission of any important anatomical facts. As a reference book for practitioners, it is superior to any similar work of which we have any knowledge, while the arrangement, and illustrations, of which there are the greatest abundance, will make it a great favorite with the student of anatomy. The plan of printing the name directly upon part to which it refers, has been adopted with manifest advantage. Students especially will be interested in the handsome new flexible waterproof binding which enables them to lay the book against the cadaver and use it as a dissecting guide, for which it is also adapted by a novel and ingenious arrangement in the text. It can be sponged clean indefinitely without injury. The publishers have endeavored to produce as perfect a book as possible regardless of its cost to them, and they at once anticipate an extraordinary sale and assure its realization by joining great value with moderate price.

The Cosmopolitan for July: Charlotte Perkins Stetson presents a vigorous reply to Prof. Peck's article on "The Woman of To-day and To-morrow" in the June *Cosmopolitan*. Frances de Forest tells of some American women who have married titles, and gives their portraits. There appears also the third prize essay on the organization of the home. This was given first prize in that class of essays which limited the cost of living to \$2.50 a day.

Scribner's Magazine for August is the usual Midsummer Fiction Number, and is remarkable for its color-printing, its brilliant pictures by young artists, and the high excellence of its short stories, which are representative of the best work of the most eminent American writers.

Richard Harding Davis tells a love story of a young play-wright in London, under the title of "The Lion and the Unicorn."

Henry Van Dyke on his many fishing trips to the Lake St. John region, gathered material which he has woven into a French-Canadian story, which has "a flavor of fresh-cut pine logs."

"The Trail of the Sandhill Stag" tells how the love of the chase grew and developed in a boy, but with far higher results than mere love of slaughter. The story is well told by Ernest Seton Thompson, author of that delightful book, "Wild Animals I Have Known."

"The Spectre in the Cart," a lynching story, by Thos. N. Page; "Little Italy," (illustrated in color) by Vorse; "A Royal Ally," another O'Connor story by Browne, complete the fiction. The number also contains the conclusion of Senator Hoar's article on Daniel Webster.

The American Monthly Review of Reviews for July is an extremely interesting number. In addition to the Reviews, it contains an able paper, "The Truth of the Philippine Situation," by John Barrett, late Minister to Siam; and a sketch on "Gold in the Philippines," by Ramon Reyes Lamon; "Scenes of Spanish Occupancy in our Southwest," by George Wharton Jones (with scenic illustrations and Indian Portraits); "Rosa Bonheur and Her Work," "Modern History and Historians of France," and "Brick Paving in the Middle West."

Review of Medical and Surgical Progress.

Treatment of Hemorrhage in Typhoid Fever by Saline Transfusion.

Dr. Carl H. Andersen reports in the *Philadelphia Medical Journal* what he claims is the first recorded instance of the treatment of intestinal hemorrhage in typhoid fever by means of transfusion of normal salt solution. The following is Dr. Andersen's report :

Corporal T., Company L, 5th Ill. Vol. Infantry, was admitted August 27th, 1898, from the camp of volunteer troops at Newport News, Va.; diagnosis "enteritis." Prior to arriving at Newport News this man came from the camp at Chickamauga, suffering from "enteritis," so that when finally removed to the General Hospital at Fort Monroe, Va., his case had become desperate. On the day of his admission his morning-temperature was 102.4° and evening temperature about the same. His stools were typical typhoid stools, spleen greatly enlarged, tongue characteristic, rose-spots on abdomen tympanites; thus no difficulty was experienced in diagnosing his case as typhoid fever. He was immediately placed upon my usual treatment. Given as nourishment 2 ounces of milk every 2 hours and as stimulant 2 drams of brandy in 2 ounces of water every 2 hours. Strychnin nitrate was administered in doses of $\frac{1}{60}$ of a grain every 4 or 5 hours as occasion demanded. The fever ran a regular course; delirium set in; the patient had violent twitchings of face and hands; skin was clammy; tympanites increased and he appeared on the verge of collapse.

Turpentine stupes were applied and oleum terebinthinæ was administered in 3-minim doses every 4 hours. Calomel was given in 2-grain doses. On the 26th day the temperature rose to 106.2° F. in the axilla in the evening, and to 103° F. in the morning. On the 29th day the patient had a copious hemorrhage from the bowels. He exhibited great depression and again appeared on the verge of collapse. His skin was cold and clammy. Normal salt-solution was administered in the rectum every 6 hours with very fair results. I then decided on transfusion. The normal salt-solution heated to 106° F. was placed in a clean fountain-syringe, properly elevated, a glass pipet point attached to the end of the rubber-tubing and the liquid gradually introduced into the median basilic vein. The fountain-syringe was elevated 3 feet above the patient and a quart of the salt-solution injected. The pulse grew stronger, the body warmer, and the result attained was generally satisfactory. Strychnin nitrate in doses of $\frac{1}{30}$ grain was administered every 2 hours. Brandy was given in the usual doses every 5 hours. Rectal enemas and strychnin were kept up all night and next day. The strychnin was reduced the next day.

On the 31st day the patient began to improve greatly, when another hemorrhage occurred. No pulse could be felt in the wrist. A quart and a half of normal salt-solution was then injected into the median basilic vein. The temperature of the solution on this occasion was 105° . The patient's

temperature at the completion of the transfusion was 104.2° F. The result was extremely good on this occasion. Hot-water bags were applied; strychnin given in doses of $\frac{1}{80}$ grain and rectal enemas of normal salt-solution continued. On the 35th day another large hemorrhage occurred. The nurse on this occasion thought the patient dead. No pulse could be felt in the wrist. The face was cold and clammy. Hot-water bags were at once resorted to; the patient was wrapped in woollen blankets; strychnin was increased and finally a quart of normal salt-solution was transfused. The patient did not rally so well as formerly and normal salt-solution at a temperature of 108° F. was transfused. As the patient complained of pain in the region of the heart after a quantity of the solution had been injected, the fountain-syringe was lowered somewhat and the transfusion proceeded with more slowly. The improvement upon this occasion was very marked. Albumen-water and milk were administered freely as nourishment. The patient gradually improved, but on the 39th day he had two very severe hemorrhages, one at 10 a. m. and another at 3 p. m. Transfusion was resorted to after each. One quart of normal salt-solution was injected on each occasion. The results attained were fair. Hot-water bags and turpentine-stupes were resorted to. Stimulants were kept up and nourishment forced as much as possible. Brandy and strychnin continued to be the stimulants used. On the 45th day another but smaller hemorrhage occurred. Transfusion was again resorted to. On the 47th day a quart and a half of the solution was transfused. At this time the temperature of the patient was 102.5° F.

From this time on the patient steadily improved. His appetite was good at all times except 12 to 16 hours after the transfusion, when he rejected all food. It was then administered by the rectum. On the 50th day the patient's temperature was 100° F. in the morning and 105° F. in the evening. The treatment now consisted of: Five ounces of milk every 2 hours; $\frac{1}{20}$ of a grain of strychnin nitrate every 2 hours; $\frac{1}{100}$ of a grain of digitalin every 4 hours, and the usual amount of brandy every 2 hours. Albumin-water was freely administered. On the 55th day large abscesses (not bed-sores) appeared on cheek, side, leg and other parts of the body. These were opened, the pus removed and the parts aseptically dressed. On the 62nd day a large abscess of the finger occurred and necrosis of the bone was developed. The bone was removed and the wound healed quickly.

Up to this time all temperatures had been taken in the axilla.

On the 70th day the patient was given milk-toast in conjunction with the albumen-water and milk, brandy, etc., formerly allowed. The temperature of the patient was now (taken in mouth) 99.5° F. in the evening and 97.5° F. in the morning. From this on the temperature remained normal. The abscesses which had formed all over the body did not recur and on the 78th day the patient was able to sit up for the first time.

From this time his convalescence was rapid and complete.

Gangrene from Carbolic Acid Dressing.—Dr. Leipzeiger, of Burlington, Iowa (*Va. Med. Semi-Monthly*), calls attention to the long-continued appli-

cation of dressings moist with solutions of carbolic acid. In view of the great popularity of carbolic acid as a family remedy in cases of cuts and bruises, this danger becomes quite important. It is not necessary that the solution be very concentrated. In one case in his practice a young woman who had cut slightly the tip of the little finger, wrapped the finger with a cloth saturated with a solution of the acid, 20 or 30 drops to the ounce. This dressing was kept on only twelve hours and resulted in gangrene of the second and third phalanges, requiring amputation. In another case the big toe was dressed with a patent salve, which appeared to the author, from the odor, to contain a considerable quantity of crude carbolic acid. Eight hours after its application the entire surface of the distal phalanx was purplish and very numb. The dressing was immediately stopped, and in the course of eight or ten days the circulation was partly restored.

Management of Pulmonary Hemorrhage.—(Norman Bridge, So. Cal., Prac.) If the bleeding is only slight in amount, not only should nothing be done for it, but the patient should be assured in the most positive manner, that it is salutary. As the patient is almost sure to be made nervous by it, he may be advised to refrain from much exertion at those times, to eat sparingly and be quiet, to the end that a small hemorrhage shall not become a large one. In the treatment of severe hemorrhage the pressure is to be reduced until a clot may be formed in the ruptured vessel. The author rarely uses aconite or veratrum. The patient should be kept recumbent and his nervousness quieted by morphia, hypodermatically, preferably with atropia. While the morphine may increase the blood-pressure slightly, as it dilates the peripheral blood vessels, tranquilizes the patient and removes fear, its advantages outweigh its disadvantages. The surface vessels may be dilated and the blood drawn from the center by hot applications, either dry or moist, by free evacuations from the bowels by means of a large enema; but this may be most quickly accomplished by the application of a ligature at the junction of the thigh with the body. This should be applied only tightly enough to cause dilatation of the veins but not to cause the limb to become purple. After a number of hours, and after the excessive bleeding has ceased, these should be slowly relaxed and the blood allowed to return to the body. Many of the drugs prescribed for excessive hemorrhage are useless and some worse than useless. In the latter class belongs ergot, the use of which in grave hemorrhage the author says savors of malpractice. Its action is only to cause the contraction of the unstriped muscular fibres in the blood-vessels and so increase the pressure.

Two Interesting Cases of Empyema.—(Dr. W. J. Breeding, Taylors, Tenn., in *Medical News*.) The first case was that of a man, aged 45, presenting a large abscess pointing in the infrascapular region. On opening it discharged about three pints of pus and was found to communicate with the pleural cavity. Resection of a rib was advised, but refused by the patient. Later there occurred a profuse discharge from the bowel, the evidence of pus in the thorax disappeared and the discharge from the incised opening ceased.

The patient gained steadily for about thirty-five days, but finally died, evidently from an infection involving the gastro-intestinal tract. The second case is so interesting that we reproduce in full the author's report.

Miss A., aged eighteen years, student in a boarding-school. Family history good. Came under observation February 8, 1898. She gave a history of having been confined to her bed some three weeks, during which time she was very properly treated by a competent physician for pneumonia. The history and temperature charts, so far as I was able to ascertain, did not show a sudden crisis, but the continuance of an irregular temperature.

I found her very much amaciated, lying on the affected side, respiration about 24 per minute, pulse 120, and temperature in the afternoon 102.5° F. My physical examination revealed what appeared to be fluid in the pleural cavity, extending as high as the fifth intercostal space in the axillary line. I was informed that a microscopical examination had demonstrated the presence of tubercle bacilli in her sputum. In view of this opinion I was somewhat undecided as to the diagnosis, the question being whether it was consolidation from tuberculosis or empyema. I was inclined however, to the latter opinion. Repeated physical examinations revealed a gradual increase of the pathological condition upward until it had involved the entire left side. The absolute flatness on percussion, displacement of the apex downward and to the right, with other corroborative symptoms, led me to a positive diagnosis of empyema. The patient's condition at this time contraindicated the resection of a rib, so I decided to aspirate. On March 1st the needle was introduced between the eighth and ninth ribs, posteriorly, and something more than one pint of pus withdrawn. This aspiration was repeated four different times. Severe coughing and symptoms of collapse always prevented the withdrawal of more than one pint. These aspirations seemed to have a favorable effect on her temperature and general condition for a few days, when the symptoms and physical signs would return as before.

Realizing that more thorough drainage must be secured, on March 15th an incision about one and one-half inches long was made into the pleural cavity between the seventh and eighth ribs. Through this opening quart after quart of creamy pus was discharged. It was kept open by means of gauze packing, and after the opening became smaller an intubation-tube was introduced and retained by means of adhesive strips. Two days after this opening was made a rupture into a bronchial tube occurred, as was shown by pints of pus pouring from the mouth and the gurgling of air in and out at the external opening.

The patient now passed rapidly into a grave condition. Her pulse was 140 per minute, very irregular, and at times could not be counted at the wrist. Evacuations from the bowel and bladder were involuntary. She was unconscious and unable to swallow liquids for three days. *Subsultus tendinum* was very marked, her temperature was subnormal, and her abdomen became as tympanitic as a drum. Hypodermic injections of strychnin and nitroglycerin were given every three or four hours.

I gave an unfavorable prognosis. The friends made arrangements for the funeral and expressed a hope that death would soon end her suffering, as this end seemed inevitable. From this extreme condition she gradually regained consciousness. As soon as she was able to swallow, tablet triturations of calomel and soda were given with the object of partially disinfecting the foul alimentary canal, turpentine stupes were applied externally, and turpentine enemas administered. An excessive diarrhea ensued, lasting five days. The abdomen assumed a scaphoid shape, and her appetite became ravenous. On March 30th, fourteen days after the thoracotomy and the coincident rupture into the bronchial tube, the following report was made: Pulse, 106, much stronger and not so irregular; temperature in the afternoon, 99.5° F.; appetite good; urine three and one-half pints in twenty-four hours and normal in appearance. Two or three discharges from the bowels daily, showing good digestion. The opening discharges half pint daily. The cavity is packed with gauze twice in each twenty-four hours. The patient is anxious to sit up in a chair this morning, and wants to know when you will allow her to go home.

A physical examination the next day revealed unmistakable evidences of fluid at the apex of the lung, while the lower region being constantly drained, showed no signs of fluid. I was forced to the opinion that I had to deal with another pus cavity at the apex, which was undoubtedly separate and distinct from the one below, consequently a thoracotomy was performed, and more than a quart of pus withdrawn from this cavity. The opening was packed daily, with a continued improvement in the patient's condition for some two weeks, when evidences of fluid were detected between the two points mentioned. Another opening was made between the fifth and sixth ribs anteriorly on May 1st. The pus was very superficial in this locality, and could be seen pushing outward when the patient coughed. Large quantities of pus drained from this opening, with a much more rapid improvement in the patient's condition. She now had three openings into her pleural cavity, one between the first and second ribs, one between the fifth and sixth, and one between the eighth and ninth ribs. These openings were all packed twice daily with sterile gauze. When the packing was removed the patient's position was changed, and all the cavities drained thoroughly.

After the last operation her temperature remained almost normal, her pulse about 100, her appetite became ravenous, and her strength gradually increased until she was able to go to her home in North Carolina on June 18, 1898, three and one-half months after she came under my observation.

At my last examination I found the lung gradually expanding, and there were no symptoms of pus in the pleural cavity. She was instructed to keep the openings packed to prevent closing as long as a discharge continued. My last letter from her states that she is practically well, weighs 134 pounds, walks one and one-half miles to church, does housework at home, and expects to begin teaching school soon. All the openings have closed except the one at the apex, which still discharges a thin, watery fluid occasionally.

I think we can draw the following logical conclusions from this case: First, aspiration is useless except as a palliative and diagnostic measure. Second, thoracotomy is often preferable to the resection of ribs, or Eastlander's operation, in cases of extreme asthenia. Third, there is a possibility of recovery after rupture into a bronchial tube. Fourth, there is a possibility that distinct pus-cavities may be formed by pleural adhesions, and such cavities must be drained and treated as separate pus-cavities. Fifth, in cases of separate abscesses it is much wiser to make a simple incision between the ribs into the pus cavity when there is sufficient intercostal space rather than subject the patient to the very grave risk from an anesthetic and the resection of ribs for the purpose of drainage. Sixth, one should never despair of such cases, however desperate they may appear.

Enteralgia of Infants.—Enteralgia, or colic of infants, is most common between the first and fourth months of infantile life, and is not only a cause of great distress and fatigue to the mother, but of much pain and suffering to the infant. Usually the infant has one attack in twenty-four hours, and the attack may recur at regular periods, either in the morning or in the evening, and may vary not only in duration but in severity. The attacks are always sudden, and the infant, while apparently comfortable, will suddenly utter sharp, piercing screams, which continue for twenty minutes, or perhaps an hour, and are then interrupted by a few moments of ease, only to have all the symptoms of colic return with increased pain and distress. The efforts of the mother to soothe or calm her babe are of no avail; the babe continues to cry and scream; it will take the breast for a minute, and then quickly let it go, and will throw itself violently back upon its mother's arm, and continue its distressing and piercing cries until every one about the nursery becomes nervous, and anxious to do something to relieve the little sufferer. During a paroxysm the infant will rapidly draw up its legs and knees, then as rapidly extend them, and if the hand of the mother or nurse is placed upon the abdomen, it will be found to be swollen, hard, and knotted; and gas can be heard moving about in the intestines. Passage of this gas, either by the mouth or anus, is usually a sign for an abatement of the paroxysm. Generally the hands and feet become cold, and drops of cold perspiration break out upon the face. The bowels are sometimes constipated, but most frequently they are loose, and the evacuations present a thin and frothy appearance. The face often indicates, by its expression, the severe suffering of the babe, and is either pale or flushed. While these distressing symptoms always end without serious injury to the babe's general health, they occur and recur regularly at about the same time every day for weeks, and sometimes months; and in order to mitigate the suffering the mother or nurse usually gives the babe stimulating potions or opiates. As a rule I have regarded these attacks as pure colic, arising from altered or vitiated secretions of the intestinal canal, but cases are now and then met with which are neuralgic, and the distinction which I make between colic or enteralgia and neuralgia in infants consists in the symptoms. In

infantile neuralgia of the bowels there is no escape of gas, the bowels are not distended or the secretions altered, and the abdomen is not distended with gas or flatulence.

Treatment.—Nothing affords a mother more delight than to have prescribed for her babe something that will relieve and cure these terrible attacks. If of a purely neuralgic character, these attacks can be not only cured but prevented by the administration of cinchona, or some suitable form of one of its various preparations, but when the attacks are colic or enteralgia, I rely for its cure upon a mixture of equal portions of lactopeptin and subnitrate of bismuth. During the first month of infantile life I usually give a half grain each of lactopeptine and subnitrate of bismuth every hour during the attacks. I direct the mother to place the powder made of this combination upon the babe's tongue every hour, and continue it whenever the child is awake until the recurrence of the colic is entirely prevented. After the first month I give two grains each of the lactopeptin and bismuth every hour. I commence this treatment during the attacks, and after a few doses the babe soon gets quiet and goes to sleep. I instruct the mother or nurse to persevere in the administration of these powders, and in a few days she will be rewarded by the pleasure of finding that her babe escapes the daily attacks of terrible colic.—*J. B. Johnson, M. D., of Washington, in Southern Clinic.*

A New Method of Anæsthesia.—The manifest disadvantages of ether and chloroform at times, and the marked limitations to the use of local anæsthetics, have caused no end of anxiety to the surgeon when confronted by unusual conditions. That a way of relief has been ingeniously contrived would seem to be found in the device recently advocated by Bier, of Kiel, in the *Deutsche Zeitschrift für Chirurgie*, April, 1899. He adopts Quincke's method of lumbar puncture after preliminary local anæsthesia by Schleich's infiltration, and injects into the sac of the spinal cord small quantities of a dilute solution of cocaine, using from one-tenth to one-sixth of a grain. This seems to influence the spinal ganglia and the root zones and the medullated fibres before they emerge from the cord, and produces a complete analgesia below the line of injection, which comes on from eight to ten minutes after the injection. By using this method he has been enabled to do major operations without pain, and yet the patient does not lose the sensations of touch and temperature. Osteoplastic operations on the knee and ankle and hip joint, resection of the femur, necrotomy of the tibia, and resection for osteomyelitis of the femur were performed without pain and with entirely satisfactory results. The author has experimented upon himself and a colleague, and reports that thus far the only untoward results obtained have been those due to a loss of the cerebrospinal fluid. This happened in his own case by self-experimentation, and he was confined to bed for some days, suffering from dizziness, headache, nausea, and vomiting when he attempted to assume the upright posture. Since the experiments along the line of lumbar puncture have been so numerous it is by no means improbable that a method can be

devised to overcome this disadvantage, and the device after further experimentation and perfecting will undoubtedly open up new fields in surgery.—*Medical Record*.

The Practice of Medicine in its Proper Light.—We quote the following from the *Clinical Reporter* for February: "What are we practicing medicine for? Is our profession a business or a pastime?" These are questions put by *The Medical Examiner* in an editorial that appears in its current issue in defense of commercialism in medicine. "Is our profession a business or a pastime?" Neither, essentially, my Lord! Our profession is "first, last, and all the time" a *profession*. Incidentally it may, in rare cases, be a pastime; it is, in most instances, a means of making a livelihood, and so far, incidentally, a business; but the relations which it establishes are relations of a peculiar personal trust on the part of the patient not only in the skill, but also in the personal honor of the physician. It is this element of personal trust which, above all, distinguishes a profession from a mere business, and which forbids all devious methods, all commercial systems of offering or receiving commissions from other professional men, specialists, etc., for cases referred. It will be a sorry day for the medical profession when the majority of its members will look upon it as primarily a business—a sorer day for their patients!—*New York Medical Journal*.

Opium in Diarrhea of Young Children.—It is contraindicated—1, in the first stage of acute diarrhea before the intestinal canal has been freed from decomposing matter; 2, where the passages are infrequent and of bad odor; 3, when there is a high temperature or cerebral symptoms are present; 4, when its use is followed by elevation of temperature or the passages become more offensive. It is indicated—1, when the passages are frequent, with pain; 2, when the passages are large and watery; 3, in dysenteric diarrhea, together with castor oil or a saline; 4, in later stages with small, frequent, and nagging passages; 5, when the passages consist largely of undigested food, and the bowels act as soon as food is taken into them.—*Crandall*.

Treatment of Cardiac Dropsy.—Borgherini (*Deut. Arch. Klin. Med.* Bd. 61, 624).—The treatment of high degrees of dropsy in cardiac diseases not yielding to ordinary measures is difficult. Various mechanical appliances have been employed and are certainly efficacious in removing fluid from the legs. The best known is perhaps Southey's tubes, but simple puncture is also efficacious. The great drawback is the danger of sepsis leading to diffuse cellulitis, and suppuration of the subcutaneous tissues. Such accidents are but too apt to follow the introduction of metallic tubes and their retention in œdematous tissues, even when antiseptic precautions are adopted.

Borgherini has modified an old method of dealing with the cases in question, which promises to be valuable. After carefully cleansing the legs, as if for a surgical operation, four incisions are made in each limb, one at each side of the malleoli and two in the calf. Each incision is two or three centimetres long and reaches the subcutaneous tissues. The wounds are

covered with aseptic gauze and a thick layer of absorbent cotton, over this are a sheet of rubber and bandage. The rubber is applied so that a small part of the heel is uncovered. The patient sits on the edge of the bed or on a chair with the feet down, and the fluid drains away into a basin under the uncovered part of the heel. The dressings are changed every twenty-four hours. The duration of the treatment varied from twelve to eighteen days. After the fluid had drained off, the wounds healed readily. A remarkably large quantity of fluid sometimes escapes. The method is applicable in renal as well as cardiac dropsy.

An excellent result was obtained in a case of heart disease with anasarca of the legs and abdomen and gangrenous erysipelas of the legs, the result of a cantharides plaster. There was also fever, diminished urine, and congestion of the liver and lungs. As the usual remedies, including purgatives, proved of no avail, and as the erysipelas was spreading, incisions were made as described above. In three days the erysipelas was arrested, œdema and ascites diminished, the urine increased, the pulse improved, and the dyspnoea diminished. In three other cases improvement resulted from a similar method of treatment. Untoward effects seldom occur and are not of much moment. This plan of treatment is naturally not one to be used indiscriminately and is unnecessary unless the usual methods have failed.—*Montreal Med. Jour.*

NCM.dJ(05) 44: 60-61, #2, 20 July 1899. **Death of Mr. Lawson Tait.**

The death of Mr. Lawson Tait, which occurred at his country residence in Wales on June 13th, removed from the surgical world one of its most conspicuous figures. It is doubtful if any man in any age ever made a more profound and enduring impression upon surgical science and practice than he; and the original work that he accomplished during his career will ever remain a monument to his genius.

Mr. Tait was born in Edinburgh, May 1, 1845, and was educated at the University of his native city. He became a licentiate of the Royal College of Physicians and Surgeons of Edinburgh in 1866. In 1870 he became a Fellow of the Royal College of Surgeons of Edinburgh, and in 1871 a Fellow of the Royal College of Surgeons of England. He received later the degrees of LL.D. and Hon. M. D. in America. In 1871 he was appointed surgeon to the Birmingham (England) Hospital for Women, and Birmingham has been his home continuously until his death. He was Professor of Gynecology in the Faculty of Medicine of Mason College, and until recently had a private hospital of his own.

Mr. Tait was a man of wonderful energy, powerful physique, and possessed an aggressive boldness which made his influence felt immediately after entering the special line of work with which he became so prominently identified. All his work is marked by that power of genius which quickly brushes aside established opinion and enters upon new lines in new directions, that power of originality which creates anew. The results of his original methods of practice were at once so brilliant and his views so original and

unique, that in a short time he entirely revolutionized the practice of gynecology. Not only did he do this, but he devised the surgery of the gall-ducts and made original contributions of inestimable value to abdominal surgery. It would be impossible in a brief notice like this to even enumerate his splendid and original contributions to gynecology and abdominal surgery. He illuminated the pathology of pelvic inflammation in women, demonstrated the important role of the fallopian tubes in this condition, and demonstrated its successful treatment by abdominal section. He solved and elaborated the hitherto unknown pathology and treatment of extra-uterine pregnancy. He devised the only successful abortive and curative treatment of peritonitis by elimination, dispensing altogether with opium and substituting active saline catharsis. He was pre-eminently the champion of aseptic surgery.

Following closely upon Mr. Lister's methods, he demonstrated the imperfections of chemical antiseptics, the local damage of chemical germicides upon the tissues exposed, and brushed away the cumbersome paraphernalia of antiseptic surgery, substituting therefor the simplicity of surgical cleanliness, sterilization by heat, and exclusion from the operative field of infectious materials. Not only did he work out all these obscure surgical problems, but by his brilliant operative work, aggressive personality, and combative disposition, established his teachings firmly in surgical practice. No greater monument is needed to perpetuate the memory of any modern surgeon than his contribution to the pathology and treatment of extra-uterine pregnancy.

Like all the work of true genius, his elucidations were perfect. All attempts to supersede them by new interpretations and modifications have failed, and his original surgical work remains to-day unaltered in any important particular by the antagonisms he provoked or the elaborate criticism and labor bestowed by workers in every country.

He had in marked degree the eccentricities of genius, and certain obliquities of character which were difficult to condone. He provoked many unnecessary antagonisms, and was impatient of all restraint. He antagonized almost the entire profession in Great Britain by his public advocacy of the fallacy of the anti-vivisection craze.

These, however, are but the accidents and eccentricities of a great genius and strong character, which in time will fade from memory. His fame will rest upon his splendid contributions to pelvic and abdominal surgery.—*L. S. McMurtry, in The Louisville Journal of Medicine.*

Dr. W. R. Wood, of Scotland Neck, died July 11th. He was born in Washington county in 1834, and received his medical education in Philadelphia. From '90 to '95 he had charge of the hospital for the insane at Raleigh.

Cocaine Poisoning is best treated in the recumbent position—amyl-nitrite, and aromatic spirits of ammonia in water, slowly sipped.—*Med. Summary.*

Therapeutic Hints.

Acute Gastric Catarrh :

R	Bismuthi subnit.....	7	(gr. x.)
	Potassi bromidi.....	1	(gr. vx.-xx.)
	Ac. hydrocyanici dil.....	3	(m. v.)
	Spt. choloformi.....	6	(m. x.)
	Mucilag. acaciæ.....	8	(ʒ ij.)
	Aquæ.....q. s. ad 30		(q. s. ad ʒ j)

M. Sig.: To be taken every three or four hours about ten minutes before food.—*Brunton.*

Stomatitis in Smokers :

R	Salol.....	1	(gr. xv.)
	Tinct. catechu.....	2	(gr. xxx.)
	Spir. menth pip.....	50	(ʒ iii.)

M. Sig.: A teaspoonful in a glass of warm water as a mouth wash.

Hay Asthma, With Cough and Difficult Expectorating Following Exposure :

Ammon chlorid.....	15	(ʒ iv.)
Tinct. hyoscyami	}āā 4	(ʒ i.)
Syr. scillæ comp.		
Syr. senegæ.....		
Syr. tolutanæ...		

M. Sig.: Teaspoonful every three hours.—*Dr. Eshner.*

Pelvic Congestion :

R	Magnes. sulphatis.....	30	(ʒ viiss.)
	Ferri sulphatis.....	5	(ʒ ij.)
	Magnesia sulph.....	8	(ʒ ij.)
	Acid sulphur. dil.....	1	(mxiv.)
	Aquæ destil.....	120	(ʒ iv.)

M. Sig.: A tablespoonfull before breakfast in a wineglass of water.—*Riforma Medica.*

Lupus :

R	Sod. sulphoichthyolat.....	2	(gr. xxx.)
	Aquæ.....	100	(ʒ iii.)

M. Sig.: Inject 1 c. c.—*Unna.*

As an Analgesic in Myelitis :

R	Ichthyol.....	0	50 (gr viiii.)
	Aquæ destil.....	10	(ʒ iiss.)

M. Sig.: Inject one cubic centimetre every second day.—*Dujardin-Beaumetz.*

Children's Emetic (Six to Ten Years) :

R	Pulv. ipecacuanhæ.....	5	(gr. viiss.)
	Antimonii et potassii tar-	or	(gr. ½)
	tratis.....		
	Oxymel scillæ.....	10	(ʒ iiss.)
	Aq. dest.....q. s. ad	30	(ʒ i.)

M. Sig.: One teaspoonful every ten minutes until vomiting occurs.—*Baginsky.*

Acute Colic:

R	Tinct. opii deodorat.....	4	(ʒ i.)
	Chloroform.....	6	(ʒ iiss.)
	Camphoræ.....	3	(gr. iv.)
	Ol. cajuputi.....		(ʒ i.)
	Aquæ.....		(ʒ ij.)
		60	

M. Sig.: One teaspoonful every hour.

Treatment of Scabies.—Dr. S. Sherwell of Brooklyn, in a paper before the American Dermatological Association, condemns the treatment of scabies

by irritant ointments of various kinds. He urges the adoption of a method which he declares is "better, cleaner and easier." The patient is instructed to take a thorough bath, after which sandsoap is to be used upon the tougher portions of the integument. A half teaspoonful of powdered washed sulphur is then rubbed over the entire skin-surface. The same quantity should be placed between the bed-sheets and shaken so as to evenly distribute the powder. This should be repeated for several nights, a cure being usually effected in a week. The writer has never seen a dermatitis follow this treatment. He also advises its use as a prophylactic measure whenever an individual is exposed to scabies.

Headache :

R Antipyrine, grs. xxx.

Sodii Salicylat, ʒi.

Cinnamon Water, q. s. ad ʒ.

Teaspoonful as required for an adult.

Retention of Life.

The following interesting case is taken from the Journal of the American Medical Association :

The possibility of the retention of life and consciousness for any time after complete severance of the body above the hips, has not been much raised in medical literature, and naturally observations of such an occurrence are rare. Not long since there appeared a sensational paragraph in the newspapers in regard to a young man surviving hours after having been cut in two by a train. As our confrère Dr. Gibbon's name was mentioned in connection with the case, we wrote him in regard to it, and received the following report :

CHARLOTTE, N. C., July 18, 1899.

TO THE EDITOR :—The patient, a young man of about 20 years, from the western section of North Carolina, attempted to board a passenger train in rapid motion. Losing his hold he fell across the rail, and the wheels of several trucks passed over his body, completely crushing the pelvis and lower portion of the abdomen, and the right arm above the elbow. The accident occurred at night about twenty miles north of Charlotte, and the unfortunate man lived about thirty minutes after reaching this place, surviving his injuries about one hour. When seen by the writer, in a crowded passenger station, the man was perfectly sensible, answered all questions and complained bitterly of thirst. His face was expressive of the greatest anxiety and restlessness, and he was entirely pulseless. There was no hemorrhage, although the mangled muscles of the lumbar and gluteal regions hung from the side of his cot.

The situation being unfavorable for a minute examination of the extent of his injury, I am unfortunately unable to confirm what was afterward told me by the trainmen, that the lower extremities were completely severed at the pelvic brim, from the remainder of the trunk. The undertaker has also assured me that he placed first the upper portion of the body in the coffin and then the legs attached to the pelvis. My own examination of the man, while

living, however, showed that the wheels of the car had passed directly over the lower part of the abdomen, of course crushing everything to pulp, though I did not suppose at the time that the section of the body was complete. I have no reason to doubt, however, that such was the case, and greatly regret that I did not insist on a removal of the body and a post-mortem inspection of the injury.

Very truly yours,

R. L. GIBBON, M. D.

Other instances have been reported where a few minutes were stated to have elapsed between complete severance of the trunk and death, but this interval is the longest we have seen as yet reported. A crushing injury such as is produced by being run over by car wheels may possibly so occlude the blood-vessels as to prevent too extensive hemorrhage at once, and if collapse and death do not at once occur, life may continue until the slightly later effects of the injury have appeared. Such cases, however, rarely survive long enough to come under medical observation. As Dr. Gibbon says in his letter, accompanying the above report, it makes really little difference whether the parts were completely severed or still held together by shreds of tissue, but the sensational character of the accident depends on the former being the case.

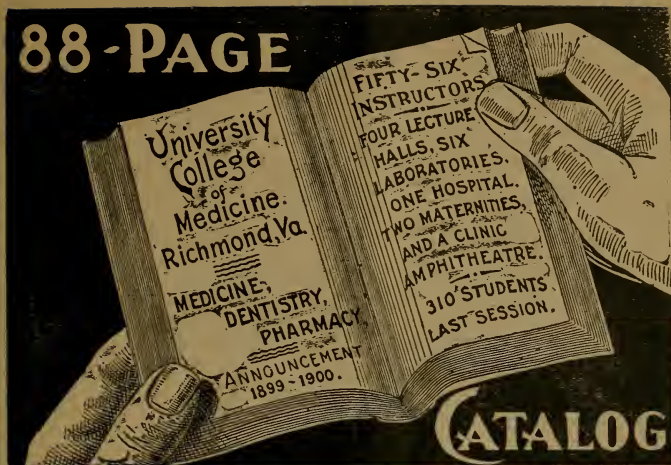
Surgical Use of Cocaine.

The following practical observations are quoted by the *American Therapist* from the *Codex Medicus*:

1. The use of cocaine should not be abandoned because its irrational employment has produced deleterious results.
2. Always make a thorough physical examination of the patient before injecting the drug.
3. It should not be used in cases showing organic disease of the brain, heart, lungs, or kidneys, or in persons of neurotic diathesis.
4. Children bear it fully as well as adults.
5. The patient should always be placed in a recumbent position prior to its employment.
6. Constriction should be used whenever possible to limit the action of the drug to the desired area.
7. Use a freshly prepared solution for each case.
8. Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added.
9. A 2 per cent. solution has a better effect and is safer than solutions of greater strength.
10. Never inject a larger quantity than $1\frac{1}{8}$ grains when no constriction is used.
11. About the head, face, and neck $\frac{1}{3}$ of a grain should never be exceeded.
12. When constriction is possible, the dose may be as large as 2 grains.
13. Every slight physiological effect is not necessarily to be taken as cause for alarm.
14. Cocaine does have effect upon inflamed tissues.
15. In case alarming symptoms occur, amyl nitrite, strychnine, digitalis, ether, or ammonia.

To which we will add: Always use a chemically pure product, free from isotropyl and cinnamyl-cocaine as well as other impurities, the presence or absence of which can be readily ascertained by the simple tests of the United States Pharmacopœia.—*New England Medical Monthly*.

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AUGUST 5, 1899.

Vol. 44, No. 3.

NORTH CAROLINA Medical Journal.

Published Semi-Monthly at \$2.00 per Annum.

Robert L. Gibbon, M. D.,

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NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, AUGUST 5, 1899.

No. 3

Original Communications.

Juvenile Criminals.

By DR. THOS. F. COSTNER, Lincolnton, N. C.

I DESIRE to present this subject to your consideration, not because I expect or can hope to offer anything new, but because of its great and ever-increasing importance, both to this Association, and to the State and society at large.

Our State has taken on a new life, and is just now developing its material resources and increasing its wealth and population with wonderful strides. So much so, that we are attracting the attention of the hitherto older and more advanced and progressive States and peoples. Our civilization should keep step with our material progress. And nothing more surely marks the true index of morality and higher civilization, than the attention paid by a people, and by the public authorities, to their poor and unfortunates, and to their criminals, those who must be restrained or reformed in order to protect society.

The medical profession has during the past decade made the greatest advances in its history, and has kept its place in the very van of the onward progress of civilization; in fact has marked each step in that progress by some new discovery or device to alleviate man's sufferings and to prolong his days, or increase his usefulness in life. We may justly feel a pride in the fact, that we have almost invariably been the pioneers who sounded the first note of warning and who led the fight for the great reforms in the laws for the benefit of humanity.

Our State has for many years neglected to properly look after and care for a large class of unfortunates, and the duty has again devolved on us, to call the attention of the people to this and to start a crusade, which with education and enlightenment, must eventually result in the enactment of more just and humane laws, for the treatment of the young class of criminals.

It is impossible to obtain any statistics in regard to the matter of crimi-

nals belonging to the juvenile class in our own State, as none have been kept of this particular class; the statistics, like the criminals themselves, have been jumbled and thrown together in one bunch. But the information to be gathered from the eleventh census, under the report on crime, pauperism and benevolence, and under the subdivision of juvenile criminals, as compared with the previous, or tenth census, shows us most assuredly that this class—of young criminals—is on the increase. Aside from the census, the very causes that produce and concentrate wealth among a few, increase the number of the poor, and the depths of poverty; and these last two results are in their turn the efficient and procuring causes of crime. If the class of criminals in general are on the increase, we may well assume, that the juvenile shares in this increase. But we have only to look around us in our daily life or step inside the criminal court room, to find how crime has infected the young, and how the number of this class is constantly increasing.

If we were permitted to study and trace the history and ancestry of many of these youthful criminals, we would probably find that in many instances, perhaps the majority, they themselves are not responsible morally, and ought not to be legally, for their first crimes. Their crime is the result of a physical and mental organism handed down to them from a criminal or defective ancestry, perhaps accentuated and increased through many generations. They are defects, were so at birth, must remain so through life, and if no proper method of treatment or restraint is thrown around them, will transmit their defects to their posterity in all probability, with the increased interest accumulated during a life of vice and crime. They are crippled in the start of life's race, unable to cope with or resist the temptations with which their pathway is beset, and an easy prey to the evil one. It may be the parent or some more remote ancestor, or a long line of ancestry, were defectives, either vicious, a drunkard, an epileptic, or in some other form a defect. Such persons as these are no more responsible, and should no more, from a moral standpoint, be held accountable for their crime than you and I. And so far from meriting the condemnation of the law, and the felon's chains and clothes and cell, they deserve the pity and sympathy of all mankind, and they should receive from the better class of our people that kind of treatment which will assist them to remedy the defects of nature and birth, and lead them towards higher and better ideals in life.

Our criminal laws, we are told, are based upon two cardinal ideas, punishment of the vicious and lawbreakers, as an example to deter others; and reformation of the offender. I fear sometimes, we have almost entirely lost sight of the latter element, and proceed in the enactment of laws for punishment, and in inflicting and carrying it out solely on the idea of making an example of the offender; and even at times another element seems to enter into the execution of the criminal laws, an element that ought never to be allowed to enter the mind or heart of a judge in dispensing punishment to the unfortunates, the idea of revenge, or a punishment to recompense, as it were, the State or some individual, for the injury inflicted by the offender.

To punish the class of juvenile criminals above mentioned and referred to, for the purpose of making an example of them, is utterly wrong in principle, is absolutely inhumane and cruel, and in its result must necessarily and does end, not in reforming the criminal, but in making him worse. In dealing with juvenile offenders, we ought to have the single object in view of reforming the offender, and in the meantime restraining him from doing injury to society. He should be taken charge of upon the commission of his first offense, placed in the care and custody of those peculiarly fitted by skill and experience to study and deal with his defects; and every endeavor made, which skill can invent, or wealth and means provide, to remedy his defects, and to restore him to his place in society when, and only when, it is safe and prudent to do so. The strongest moral influences should surround him, while thus restrained; such a system of merits, rewards or compensation for industry, good behavior and improvement should be devised, as would quicken and develop and stimulate the better and higher moral and intellectual powers; powers, which even among the criminals, are often only dormant, and need to be aroused and put in action, in order to engage the attention of the man or youth, and to drive out or tend to dispel, the vicious elements in his make up. It is unnecessary to say to any who have stopped to reflect on human nature, or who have observed it in their everyday life, that there is hope of reforming even the older offenders, and there is great hope of so changing and moulding the mind and even the heart of youthful criminals as to make of them useful and even valuable members of society. A wide field of usefulness, hitherto unoccupied in our State, is open along this line to those who wish

"To soften the weight of adversity's touch
On the faded cheek of their fellow-man."

Our treatment of this class of offenders is the very reverse of what it should be. Upon their first offense, in some instances, yes in many, when we take into consideration their surrounding environments, their antecedents and their capabilities, when they hardly have an idea of society and no conception of the law's demands, they are taken and confined in a jail, filled with older and more hardened criminals, reeking with filth and unwholesome and repulsive surroundings. In many instances they remain there until the court meets which will try them, or if they do not remain during this preliminary period, at the trial they are sent back there or to the penitentiary with similar surroundings. And when this same criminal in after years is called up before the same or some other bar of justice, for another or second offence, the fact that it is his second offence is laid to his charge, his punishment is increased because he did not reform; when in reality the State and the laws enacted by the governing powers have placed in his pathway every obstacle possible to his reformation, in the very method and manner of punishing him for his first offence.

Certainly no cause is a more efficient or prolific source of crime than evil associations and companionship with the bad. Our English cousins have

long since discovered this evil, and made provision to remedy it to some extent at least, by providing a separate sleeping apartment for each criminal, old or young, confined in their prisons or penal institutions. We ought to follow their example in this matter, and especially ought we to keep all young offenders, both during their confinement preliminary to their trial, and when under final sentence, away from the vicious and criminal elements, and surround him with those influences and associates which make for good. Association is a powerful factor in society; if wielded for good, its influence extends beyond the conception of man; if for evil, its blighting impress is likewise immeasurable.

According to the last census report, twenty-five States and the District of Columbia had some means for caring for juvenile criminals, either such as were provided by law, or by individual charity. Perhaps the best known, as it is reputed to be the best managed institution of the kind, is the New York State Reformatory, at Elmira. We are reliably informed that the superintendent of the institution is a man of the highest skill and qualifications for this kind of business; that the management of the institution is fortunately kept outside of politics and its influence, which is often so destructive to the progress and systematic development of such and similar institutions. The criminals who are sent there are sent under an indefinite sentence, there being simply an extreme limit; that is they cannot be kept there beyond the maximum time which they could be confined in prison, and they may be paroled or discharged at any time the officers of the institution under the regulations thereof deem it proper. Every inmate of the reformatory is made the subject of the most thorough study. The history of his life and of his ancestry as far back as it can be traced is gone into; all his habits, his prejudices and his weaknesses are most carefully studied. He is surrounded with the best of influences, and his time and thoughts are occupied with such employments as are deemed best suited to correct the causes which lie at the foundation of his crime. A complete system of merits and of marking along every line, with the ultimate object in view of paroling and finally discharging him when he has attained the degree of perfection required by their rules and standards, and this hope and the rewards attending each onward and upward step are constantly before him as an inducement to progress and development. When he has attained the required degree of advancement, he is first paroled, and a place found for him to obtain employment, but he is still under the surveillance and oversight of the institution and his history is carefully followed; if he goes to another town or city, the police are notified, and are required to keep trace of him and report regularly and constantly his progress. If he makes any, even a slight lapse, under the authority granted them by law, he is forthwith sent back to the reformatory, and goes through a similar training. The reports show the most satisfactory results, and also show that the average time of confinement in this reformatory is considerably less than for like criminals in the ordinary prisons.

Viewed from the point of cost, the maintainance of this reformatory may

seem rather expensive, but we will find it only seemingly so, when we look to the number of inmates. While we may not be able to induce our law-makers to start on so extensive a scale, it is time the start was made. It is a duty every good citizen owes to his more unfortunate fellow-creature; it is a duty our law-makers owe to their constituents and to the State and society, to establish in our borders just such a reformatory.

One thought more I desire to suggest for the consideration of this body, on the same subject, that is, how best to restrict and restrain the marriage of defectives, and criminals, and the propagation of their defects. I see one of the Western States has recently enacted a law preventing and prohibiting altogether the marriage of defectives and criminals. Such a law is undoubtedly founded upon the highest wisdom, and will be of inestimable value to society, if it can be carried out. How to best enforce such laws, and how to make them of practical utility, will doubtless require great time and patience, after such laws are once enacted; but before they can be enacted a great deal of educational work must be done.

Our situation and training places us in a peculiarly advantageous position to see the needs of the reforms which I have briefly mentioned above. Our position and distribution throughout the whole country, and our contact with every class of people, places us in a position to wield the greatest influence in favor of these reforms, and in educating the masses of the people to their necessity. It is unnecessary to add, that with this peculiar knowledge and opportunity, a Higher Power has coupled and placed upon our profession the duty of bending our united and individual efforts to the accomplishment of this great end.

Ileo-Colitis and Dysentery.

By W. G. STAFFORD, M. D., Burlington, N. C.

ALTHOUGH fearful that some will be bored by my short article, I will venture to write you concerning ileo-colitis and dysentery, quite a number of cases of which have recently come under my care.

Many and various hobbies have been ridden to death in the endeavor to have this or that remedy or regime adopted as a *sine qua non*, while humanity cries aloud in grief and anguish because of the annual tribute these conditions impose.

The ætiology and pathology seem to be well understood and hardly disputed in the face of the findings of the morbid anatomist; and I shall not take up the space or the time to discuss them. Nor shall I say much as to treatment. I will say however, that, like in other morbid conditions, each case is a law unto itself, differing according to age, strength, stage of disease, and environment.

An aseptic condition of the alimentary canal is the ideal after which we strive. But how to attain this ideal and not kill or injure the patient, is the problem.

In their proper time and place, calomel, salicin, bismuth, salol, ipecac, creosote, guaiacol, and the much abused opium, have their proper uses, and therefore it is right to use them when indicated in their turn.

There is one remedy which I have, so far, used with increasing confidence; I refer to enemas of normal salt solution. The fluid should be injected very slowly into the bowel, the quantity varying according as we wish the clyster to be retained or not. If rejected it acts as a soothing wash, very cleansing, to the parts with which it comes in contact. If retained it serves to increase the blood-pressure, acting indirectly as a food; modifies osmotic action, thus checking the waste from the system and relieving the tenesmus which is such a distressing feature.

In my practice, for, say a child of the second summer, an occasional enema of a pint is given to cleanse the bowel and remove *Materies morbi*. Then an enema is given after every other action for a day or two, when, if the increasing or persisting tenesmus demands it, I repeat the larger quantity. The smaller enema, of about two ounces, is usually retained and absorbed. The child feels more comfortable and generally falls asleep, while the interval between the motions is much extended; and this extension is increased with almost every succeeding enema.

The salt solution should be used at a temperature of about 90° F., and, as said before, injected very slowly.

In closing, I must say that, after duly considering what has been said *pro* and *con* regarding bismuth *sub nit.* in large doses, my experience, covering a period of twenty-two years, is largely in its favor. In saying this I am not an empiric. The salt acts not only as a protective coating to the inflamed *mucosa*, but constricts the structures, especially the capillaries, thus abating congestion, and last, *but not least*, combines with and removes from the economy the toxic sulphuretted hydrogen.

Clinical Notes.

By H. A. ROYSTER, A. B., M. D., Raleigh, N. C.

1. *Labial Chancre*.—During the last three years I have seen two cases of chancre of the lip. One occurred in my own practice; the other was seen while under the care of another physician. Both sores were in young men—were situated on the lower lip and had been considered to be “fever blisters” at the start. I had reason to suspect venereal disease in these young gentlemen, but the diagnosis was rendered certain by the marked induration of the sores and their persistence, by the absence of pain, by the enlargement of the submaxillary glands on the affected side and by the subsequent development of secondary symptoms. Indeed the second case showed a general papular eruption at the time of my first examination. Extra-genital chancre is, to say the least, unusual. Its most frequent seat, excluding the rectal region, is the under lip, and, according to most authorities, it is more common in women than in men. Somewhere I have seen it stated that when the pri-

mary lesion is located on the lips or mouth, the course of the syphilis is usually mild. In the two instances here referred to such was the case. Morrow,* however, intimates that the prognosis is in general, more unfavorable with extra-genital infections, and thinks that chancres of the fingers especially indicate a severe type of the disease.

2. *Compound Fracture of the Lower End of the Femur, With Rupture of the Quadriceps Extensor Femoris.*—On the 19th of November, 1898, a colored boy of 12 years was brought to St. Agnes' Hospital.

Three hours before admission, while swinging behind a moving wagon, his right leg was caught between the spokes of a wheel and the limb badly crushed. Examination disclosed a ragged transverse wound, just above the knee, extending about two-thirds the distance around the thigh. The femur was fractured obliquely about two inches above the joint, and the sharp lower fragment was protruding through the wound; the soft parts were extensively lacerated, while the quadriceps extensor muscle was completely severed. The popliteal vessels and nerves escaped injury. There were severe abrasions of the skin below the knee. Although it looked doubtful, yet, considering the good blood-supply and adequate innervation, an attempt was made to save this limb, which on superficial examination might have seemed to demand amputation. The parts were thoroughly disinfected, pieces of loose bone and other debris washed out and the fragments of the femur brought into apposition without anæsthesia, since the patient was dazed from the shock and only semi-conscious; the torn ends of the quadriceps were united throughout their whole thickness with catgut and the skin closed with silkworm-gut sutures, having an opening at the most dependent place for a rubber drainage-tube. The condition of the skin below the knee forbade the use of extension apparatus, and a modified plaster trough was, therefore, applied. Primary union occurred along the line of suture, except around the drainage-tube, through which pus began to discharge after several days; for, in the words of one of my assistants, we "neglected to disinfect the wagon wheel." This suppuration necessitated the removal of the plaster trough, which was replaced by two long sandbags, one on each side. The discharge was very free at first, but was gradually controlled by deep irrigations of bi-chloride solution (1-3,000) and afterwards of hot normal salt solution. The leg improved rapidly and in five weeks the boy was walking on crutches, with only a half-inch shortening. Under careful massage and passive motion he slowly gained use of the movements of his limb, with good flexion and extension, and eventually with a very slight limp in his gait. This case is recorded to emphasize the fact that limbs thought to be beyond redemption may sometimes be preserved, and to show the perfect result secured from suturing a large muscle after extensive laceration and infection.

3. *An Unrecognized Rupture of the Uterus.*—While I was absent from the city in May, 1898, there was admitted to my service at Rex Hospital, a

*Jour. Cut. & Gen.-Urin. Dis., Apr. '96.

colored woman, from whose chart is copied the following: E. B., age 32 (?); has had three children, last one in September, 1895; no miscarriages. Her menses ceased in July or August, 1897—she does not remember exactly. In good health up to September, 1897, when she began to have spells of pain in lower abdomen and back, accompanied by very profuse sweating. Attacks lasted about a day and she would return to her work as a cook. After three or four such spells she was confined to bed, where she remained over a month. She was then taken to another hospital in which she stayed about three months, being treated by local applications to suspicious growths on her cervix uteri. Toward the latter part of December, 1897, began to think she was pregnant. While in bed at home (Sept. '97), she had slight discharges of blood from vagina, lasting a day or more, at times being absent for a week and then returning. Has never since been free from this discharge longer than two weeks. Felt foetal movements for the first time in December, 1897, and continued to feel them until a week ago. The day before admission she had a severe hemorrhage and was taken to the hospital, a distance of 7 or 8 miles, in a wagon. At my first examination I found the patient very weak; her pulse was rapid and feeble; the temperature showed a septic course; she was extremely emaciated and, at times, delirious. The abdomen was uniformly enlarged, somewhat fluctuating and so tense that palpation gave no further information. The cervix was hard. Even with the history above related it was impossible to say positively whether the woman was pregnant or not; however, giving her the benefit of the doubt, an effort was made to induce labor, but without success. The patient's condition was such as to preclude the hope of saving her by further operative procedure. She sank rapidly and died—a result which would only have been hastened by an abdominal section at any time in the few days she was under my observation. The autopsy revealed a ruptured uterus, the whole anterior wall of the organ being sloughed off and a full-term foetus floating free in the peritoneal cavity, which contained a large quantity of foul fluid. This case is remarkable from the fact that the woman's uterus could have been ruptured without her being aware she was in labor and that she survived so long after its occurrence. It is fair to presume that the accident happened at the time (May 9) of the "severe hemorrhage" mentioned in the history, and yet the patient did not succumb until May 25, more than two weeks afterward. Sharp ridges projecting from the pelvic bones have been known to sever the walls of the womb, and the administration of ergot during parturition has been responsible for uterine rupture; but by far the greatest number are "the direct result of uterine contractions and over-distention of the lower segment of the uterus," as first pointed out by Bandal.* According to this patient's story, which was pumped out of her piecemeal and is open to a suspicion of inaccuracy, she was at or past her full term. The explanation would seem to be that she fell into labor unawares and that there existed some abnormal presentation or some other mechanical impediment, which produced the rupture. No deformity of the pelvis was observed.

323 W. Morgan street.

*Amer. Text-Book of Obstet. P. 611.

Anæsthesia By Suggestion.

By J. H. FOUTS, M. D., Franklin, N. C.

MARY M., colored, æt 26, primæpara, in good health and of medium size. When first seen by me had been in labor about thirty hours.

On examination I found twins, membranes ruptured and one shoulder presenting. I concluded to try cephalic version, so I got my chloroform bottle and to my dismay there was not more than a dram in it. I was about eight miles from a drug store and the woman was having expulsive pains; therefore, I thought I would try to deliver with what I had.

I put a part of what there was on a handkerchief, gave her a few whiffs, handed it to a midwife, and proceeded to try to turn by cephalic version.

The chloroform was soon gone and the child still in the same position.

I now began to try podalic version and patient began to scream and beg for chloroform (the handkerchief had long since been removed from her face). I gave the mid-wife "the nod" and told her to give her plenty of it. As she placed the handkerchief to her nose I said, "Now shut your eyes and go to sleep." In less than ten seconds she was in a profound slumber, and remained so without moving a muscle until the child was turned, that being I think about eight minutes. There was not the least odor of chloroform on the handkerchief when applied this time.

She now awoke and called for more chloroform. I repeated the words as quoted above, and immediately she fell asleep.

The after-coming head now gave me trouble, and while trying to deliver it she again awoke and called for chloroform.

I now began to prepare my forceps, my patient lying there looking at me. When ready I again ordered chloroform and also ordered her to go to sleep; she did so at once. I applied the forceps and delivered the head without a groan or a movement of the mother. She was soon awake again; the other child presented normally and was soon born without aid on my part. Both well developed, but first one dead.

Deflections of the Nasal Septum.*

By THOMAS C. EVANS, M. D.

Lecturer on Ophthalmology, Otology and Laryngology in the Kentucky School of Medicine, etc., Louisville, Kentucky.

I SHALL not dwell upon deformities and disfigurements due to deflections of the nasal septum, nor the ills and inconveniences dependent thereon.

Among deformities may be mentioned deformity of the nose, distortion of the face, contraction of the alveolar arch, and dental irregularities.

The important complications and sequelæ are: mouth breathing, disturbance of speech, chronic deafness, hay fever, frontal headaches, nasal hypersecretion, defective drainage, diseases of the accessory sinuses, pharyn-

*Author's abstract of a paper read before the Kentucky State Medical Society, 1898.

gitis and laryngitis, asthma, and the more remote reflex phenomena of chorea and epilepsy.

The diagnosis is apparent and its importance has long been recognized ; consequently, the energies of the profession generally and the rhinologist in particular have been concentrated upon treatment or correction. It has afforded a rich field for the inventors of new instruments, and the devisors of new surgical operations ; some are ingenious and plausible, many crude, cruel and irrational ; but the erring and misguided member withstood the onslaught of them all ; after being punched, fractured, incised, distorted and twisted, the deflection would return to plague both the patient and surgeon, until septal deflection became the *bete noir* of rhinology.

I will attempt to describe an operation which has given me the greatest satisfaction, and can, I believe, be safely and successfully performed in all cases of this deformity. The operation is substantially that devised by Morris J. Asch and described by him in a paper before the American Laryngological Society in 1890.

In order to make myself more fully understood, attention is called to drawings Nos. 1, 2, 3, and 4 ; and to instruments Nos. 5, 6 and 7.

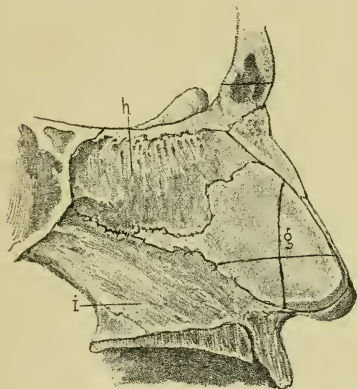


Fig. 1.



Fig. 2.

No. 1 shows the anatomical parts involved, the vomer, perpendicular plate of the ethmoid and the cartilaginous septum. The cartilaginous septum is divided by a conical incision to be described later. No. 2 shows the de-

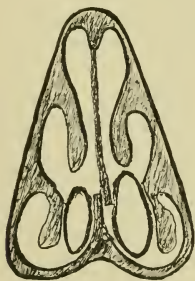


Fig. 3.

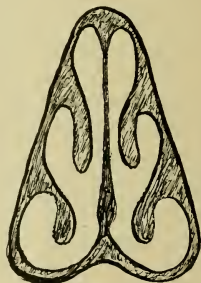


Fig. 4.

formity with deflection to the left. No. 3 shows the condition at the completion of the operation, after insertion of the tubes. No. 4 shows the condition of the septum and nose two months after the operation. No. 5 repre-



Fig. 5.



Fig. 6.

sents Asch's septal scissors; No. 6, Adam's septal forceps; and No. 7, Acsh's vulcanite perforated nasal tubes.



Fig. 7.

A general anesthetic will be necessary. As hemorrhage is quite profuse during the operation, the usual precaution in regard to the patient's position must be observed, as in all operations on the nose and throat under general anesthesia. The instruments necessary are: a pair of Asch's septal scissors (fig. 5), a pair of Adam's septal forceps (fig. 6), two vulcanite tubes (fig. 7), and a probe-pointed septal knife.

The surgeon passes his little finger into the stenosed nares to determine the extent of deflection, its point of greatest convexity, whether enchondrosis exists, and whether there are adhesions between the septum and the outer wall of the nose. If adhesions exist they should be dissected up before proceeding with the operation.

Having accurately located the apex of the deflection, the Asch scissors are introduced into the nose with the non-cutting blade in the stenosed side; the first incision is made through the septum in line of the greatest convexity and parallel with the floor of the nose; as the handle of the instrument closes the cutting blade penetrates the septum with a snapping sound, which clearly indicates that its work is completed.

The direction of the scissors is now changed and a second incision made through the septum at right angles to the first, and intersecting near its center. With the probe-pointed knife the horizontal incision is extended both anteriorly and posteriorly to the limit of the cartilaginous septum; the vertical incision is extended in like manner. Completion of the crucial incision divides the cartilaginous septum into four imperfect, irregular and unequal triangles (fig. 1). An Adam's forceps is now introduced, one blade in either nostril, each of the triangular fragments of cartilage is caught separately and twisted on its base with sufficient force to loosen its articulation and com-

pletely destroy its resiliency. After the forceps are withdrawn the finger should be introduced to determine if resistance has been completely destroyed; if not, the forceps must be reapplied and the resisting fragment broken down. Want of thoroughness in this particular will defeat the object of the operation. The septal cartilage is exceedingly tolerant of traumatism and no fear of overdoing need be entertained.

When this part of the operation has been completed, the nasal cavities should be irrigated and all clots removed from the nasopharynx. The perforated tubes can now be introduced; on the stenosed side the tube should be of sufficient size to hold the flaccid and pliable septum in the desired position; on the other hand it should not be large enough to cause pain or unnecessary pressure. Care is necessary in introduction to prevent the tip of the tube passing through the crucial opening into the opposite nares instead of directly back into the stenosed side. A small tube should be introduced into the open side of the nares in order to give support to the septum and maintain the overlapping fragments in closer apposition until healing takes place.

Properly fitted tubes will be worn without discomfort, and are only noticeable on close inspection. With introduction of the tubes hemorrhage ceases.

After twelve to twenty-four hours the nasal cavities should be irrigated (through the tubes) with hot boric acid solution, repeated every two or three hours; the tubes removed on the third or fourth day and thoroughly cleansed; the nose sprayed with a weak solution of cocaine, and cleansed with alkaline solution; after which the tubes can be replaced.

After the first week the patient is able to remove, cleanse, and reinsert the tubes without the surgeon's assistance, and may safely be permitted to follow his ordinary vocation.

On the stenosed side the tube should be worn constantly for six weeks, when it can be removed during the day and worn at night for the next four or five weeks. The small tube (on the open side of the nose) may be removed at the end of the second week after the operation.

While the septal scissors of Doctor Asch greatly facilitate the operation, it could be performed with a bistoury or septal knife.

The dangers of the operation, aside from those due to administration of the anesthetic under the adverse conditions named, are practically *nil*. Pain and discomfort following the operation are inconsiderable.

Since adopting this method the results have exceeded my most sanguine expectations. As the excess of the cartilaginous septum is taken up by the overlapping and healing of the four fragments, a relapse or recurrence of the deflection is, I believe, an impossibility. If much enchondrosis exists on the convexity of the septum, it should be removed before straightening the septum is attempted. With this operation we can confidently promise an upright septum, entire relief of nasal obstruction, and cessation of the long list of symptoms dependent thereon. In addition, the external deformity will be greatly benefited if not entirely corrected.

SELECTED PAPER.

The Treatment of Uremia by Venous Section.

By JAMES C. WILSON, M. D.,
Professor of Medicine, Jefferson Medical College.

The following case, a young man suffering from chronic interstitial nephritis, was admitted to the hospital October 3, 1898. The most interesting thing about the case is the fact that he was sent here with the diagnosis of convulsions caused by excessive cigarette-smoking. The case was reported in the daily papers and has acquired much celebrity in consequence. How such a diagnosis was made I am unable to fathom, and the young man denies that he is a cigarette-smoker at all. He is a tobacco-chewer, but uses tobacco in no other form. His father is living and well, but his mother died of hemiplegia. In about forty per cent. of the cases of hemiplegia there is found to be disease of the kidneys also.

The patient came to the hospital with the history that about two months previously he had a number of convulsions, but recovered sufficiently to go back to his work as a machinist. It should be clearly set forth that he has no history of epilepsy; the arteries are thick and the arterial tension is very marked. The urine is yellow in color, slightly acid, with a specific gravity of 1000, and contains many casts.

This is probably a case of chronic interstitial nephritis, with an acute exacerbation of parenchymatous nephritis. We talk and read of this definite division of Bright's disease, but the majority of cases undoubtedly overlap; the forms of inflammation and the histological changes are mixed; so that we generally get a mixture of symptoms which sometimes may be confusing.

When it comes to a matter of treatment I always like to picture the condition as one in which the patient has been poisoned and for whom relief must come. In these conditions the kidneys have generally failed and the toxic materials are held in solution in the blood. Then it is necessary to fall back on the other excretory organs, the intestines and the skin. The use of hot-air baths for copious sweating and the use of calomel for active catharsis are indicated. In addition nerve sedatives are frequently indicated to lower the nervous irritability of the system; for this purpose I prefer chloral, although under exceptional circumstances morphine may be used.

But there is a class of patients, such as a woman in her first pregnancy, who is threatened with puerperal convulsions, or who is sinking into deepening coma, or in whom the next convulsion may be the last, in whom the indication is to bleed. In this patient, if his condition had not improved under the treatment he was getting, I would next have ordered a fillet to be thrown around his arm and had him bled—ten, twelve, or even sixteen ounces.

In the past hundred years the art of bleeding had its ups and downs, until

to-day it is largely discarded; but I have stood at the bedside of a great many patients during the past twenty years, and have seen numbers of them come back apparently from the grave under the use of judicious bleeding. In cases of poisons circulating in the blood, a man suffocating with illuminating gas or carbon dioxide, congestion of the lungs with acute ventricular distention, in uremia, which will not respond to other treatment, the use of the lancet has turned the scale. It is no great drain or shock to the system; the blood-making organs produce new blood quickly and easily. Even turning an exsanguined patient so that his head is down and his feet are up will serve to revive him to a marked degree.

Buchard has demonstrated that there are probably six or eight toxic principles in the blood under these circumstances which are having different effects on the various nerve centers. It is not the accumulation of water nor urea which does the damage. It is well at the present time not to speak too definitely of the toxic principles until further investigations have determined their character more decisively.

The rationale of blood-letting is almost self-evident; volume for volume it has been determined that there is forty times as much of the toxic material drawn off in the blood as by diuresis—that is, one pint of blood removes as much poison as forty pints of urine. When we consider how impossible it would be to get this quantity of urine, we are able to see the value of the venous section. In addition, when we remember that there is usually an acute process added to the chronic condition, we can judge of the urgency of the condition. No one can, for example, examine the kidney of post-scarlatinous nephritis, and see how it fairly drips blood, without seeing what a local congestion exists in these cases. I believe that too little attention is being paid to these conditions by the profession; there is a strongly marked tendency to consider these cases as hopeless. As I have said, I have seen too marvelous results obtained by blood-letting to discard it. In the course of a few hours the whole clinical picture may be changed by the judicious use of this discredited therapeutic agent.—*Medical Age*.

One of the last acts of the late Czarevitch, as we learn from the newspapers, was to publish a set of rules for consumptives. Himself a victim, he followed these rules most rigidly; the fear of imparting his disease became almost a mania with him, and none of his attendants were allowed to be on duty with him over two hours a day; the rest of the time they were obliged to spend looking after their health. He had collected, it is said, an extensive library on the subject of tuberculosis, which seems to have been the subject that most occupied his attention.

A Suggestion.—Every issue of the N. C. MEDICAL JOURNAL contains some items that are of interest to you, and a physician suggests a simple plan of "keeping track" of these items. Paste on the outer cover-page a slip of blank paper, and write on it the titles and pages of the articles that are helpful to you. You can then readily refer to any of these papers or items.

North Carolina Medical Journal.

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Editorial.

STANDARDIZED DRUGS.

The question of the adulteration of foods and medicines is ever an important subject to both physicians and the public, and we apprehend that both are alive to the necessity of a rigid exclusion of all such dishonest and often deleterious articles as are proven to be other than what they should be. To the physician the importance, not only of pure drugs, but drugs of standard strength and physiological activity, is not to be overestimated. Drugs are to the physician, in many cases, what tools are to the mechanic, and it needs no argument to show that neither can accomplish satisfactory results without reliable instruments of precision. It is a widely recognized fact that there is a very considerable difference in physiological activity in different specimens of the same drug—a difference ranging all the way from absolute inertness to highly concentrated strength. Fortunately the defect is usually on the side of inertness. The absence of any physiologic effects following the careful exhibition of some worthless preparation is undoubtedly responsible for much of the therapeutic nihilism in the profession, a condition of mind that is distinctly aggravated when, from the presence of extraneous substances, or the preponderance of certain principles of the drug, the effect upon the patient is disagreeable.

The Pharmacopeia of 1890, recognizing this variation in different specimens of the same drug, prescribes a standard of strength for certain drugs whose medicinal virtues are mainly dependent upon some active principle easily demonstrated by chemical assay. These drugs are opium, nux vomica and cinchona. The British Pharmacopeia (1898) in addition to the foregoing drugs, also establishes a standard for belladonna and ipecac. The U. S.

Pharmacopeia of 1900 will doubtless increase this list of standardized drugs, and it has been suggested that gelsemium, podophyllum, hyoscyamus, and stramonium could be as easily made to conform to an established standard by chemical assay, as opium or cinchona. It is unfortunate that quite a large list of important drugs is not amenable to chemical tests, no satisfactory method having been elaborated by chemists thus far for measuring their physiological efficiency. In many of these also, the therapeutic effects are not derived from any single active principle. This list would include such medicines as digitalis, strophanthus, cannabis indico, ergot, and others. To drugs of this class physiological tests have been successfully applied by a process of experimental administration to living animals in accordance with the usual precautions common in studying the physiological action of drugs, except that in this case, the action of the drug being already known, the effort is made to have it exert a certain degree of activity under given conditions. Such tests are perhaps too elaborate and expensive to hope that they will find a place in the next Pharmacopeia, but certainly all physicians are highly interested in anything that will add efficiency to their art, and while it is impossible to standardize our patients and their resistance to the invasion of disease, we can at least materially help ourselves by the official adoption of a standard for our medicines that will insure a definite degree of potency in all preparations of the same drug.

THE PHYSICIAN IN PUBLIC LIFE.

The practice of medicine is usually so exacting in its demands that but little time is left for the physician to take part in municipal or State affairs, or in fact in anything not connected with his profession. This feature of the doctor's character has become more accentuated in modern times, for we read that in the early history of our country members of our profession filled prominent positions in the nation. At the present time, however, due probably to the great increase in the number of physicians and the keenness of competition, the average medical man prefers to stick to his work rather than run the risk of losing his clientele by being led off into any pursuit not connected with his professional work. We were somewhat surprised therefore to learn that one of the busiest as well as one who had done much to advance certain branches of medical science, had found time to enter the political arena, where his words were as trenchant as though uttered in the halls of science.

The London correspondent of the *New York Record* has the following to say of the late Mr. Lawson Tait :

"It may, however, interest you to hear that he was at one time on the staff of a Birmingham daily paper, and always took an active part in the municipal affairs of his adopted home. He was on the town council from 1876 to 1885. The next year he was a Gladstonian candidate for Parliament, but the wave of unionism was too strong for him and he was badly beaten.

Under more favorable circumstances he might have succeeded, for he was a powerful speaker, with plenty of the controversial spirit, a ready wit, a caustic sarcasm, and an earnest manner which impressed his hearers with the idea that he was strongly convinced that his views were right. But perhaps he shone still more as an after-dinner speaker, when wit and geniality replaced sarcasm and argument."

The physician may occasionally attain literary success, as such notable modern examples as Weir Mitchell, Conan Doyle, or Oliver Wendell Holmes show, but he ordinarily does not have the making of a high order of the genus politician, and such success as he may achieve in this line is nearly always at the expense of his professional reputation.

MEDICAL TRUSTS.

The present tendency to the formation of combinations and trusts of all kinds is even invading the domain of medicine. In this city, at the present time, an effort is being made to organize a lodge which, among other benefits, confers that of free medical attention upon its members. The "Lodge Doctor" threatens to have an abode in our midst, unless the influence of the local medical society should prove a sufficient impediment to the perfection of this part of the scheme. Such a condition in medical practice would bear especially hard upon the younger members of the profession and those who are struggling to make a place for themselves. We also note that in New York City an organization has been formed, known as the "Manhattan Medical Service Company," which promises for an annual fee of two dollars to treat at the general consultation office of the company any person between the ages of 16 and 25. In case the member prefers to be treated at home, the "company's district physician" can be had by the payment of ten cents a week. This important servitor of the company, the "district physician," receives five dollars for every one hundred contracts issued by the company in his district, and seven dollars for every one hundred prescriptions he writes. These are not all necessarily individual, but family contracts are also included, so that the "district doctor" gets fifty cents per annum for attendance upon a family, however large, and seven cents for each prescription. These contracts are said to include obstetric and venereal cases.

A Physician Assaulted for Performing a Work of Mercy.—Dr. Froelich of New York was brutally assaulted one night recently by striking motormen of a trolley road, because he bandaged the head of a fellow-motorman, whom they had abused because he would not join in the strike. The doctor saw the man on the street with a long gash in his scalp and bound up the wound the best he could at the time and while thus engaged was told by the strikers to leave the "Scab" alone. After doing what he could for the wounded man he started home, but had not gone far when he was struck on the head with a brick and severely beaten by the crowd. Such actions as this on the part of the strikers will go far toward alienating public sympathy from their cause.

Medical News and Items.

Yellow Fever.—About the first of August the startling announcement was made that several cases of yellow fever existed at the National Soldiers' Home, near Hampton, Va., near Newport News and Old Point Comfort. It is not yet known just how the disease got there, but an old soldier recently from Santiago, who had entered the home early in July, is believed to have been the bearer of the infection. As we go to press we are informed that quarantine has been raised and that all danger of further spread of the disease has passed.

Changes at the Johns Hopkins.—At the commencement of the Johns Hopkins University, held on Tuesday, June 13th, there were thirty-three graduates from the medical school, two of whom were women. The changes in the medical faculty announced for next year were as follows: J. Whitridge Williams, associate professor, will be professor of obstetrics; Lewellys F. Barker, associate professor of anatomy, will be associate professor of pathology; Ross G. Harrison, associate, will be associate professor of anatomy. Several new assistants were also appointed, also the internes and externes of the hospital, as well as the resident house-officers.

The Destruction of Mosquitoes With Kerosene.—Mr. Howard, of the United States Department of Agriculture, proposes to destroy those vexatious vehicles of malaria, mosquitoes, by sprinkling kerosene oil over their breeding ponds. The *British Med. Jour.* reports an interesting experiment along this line. Four drops of kerosene added to a bucket of water containing four or five hundred larvæ killed them all in an hour, and a teaspoonful killed within a few hours the many thousand contained in a large water-tank.

A Stutterer Cured.—Private H. E. Redwood, who is now serving in the Philippines, was, when he enlisted, so affected with stuttering that the recruiting officer was tempted to leave him off the rolls. At the battle of Mariquina he was shot in the face, the bullet passing through his mouth, and making its exit near the back of the neck. He recovered from the wound, and it is stated that he now stutters no more, and that he is busy completing the telling of stories which he had never been able to finish on account of his halting speech.—*Med. News.*

An Up-to-date Aseptic Confinement.—Dr. A. Ernest Gallant, in order to show the extremes to which some go in their enthusiasm over aseptic midwifery, described the elaborate preparations which a certain physician had made in anticipation of his wife's confinement. Three months before the expected time he began his preparations by having a hard-wood flooring laid in the third story of his house, the walls, ceiling, and doors enamelled, glass knobs put on the doors, and new furniture, of the hospital type, installed. A new set of instruments was purchased, and a gas-stove and fish-kettle provided for their proper sterilization when required. The pads, eye-wipes, tape, absorbent, and other material for dressings were sterilized and delivered at the house in sealed packages. Just before the confinement the sheets, towels, gowns, and clothes to be worn by the patient were sterilized by exposure to steam for two hours, and the room, furniture, and utensils were disinfected with formalin gas. The patient herself was prepared as for a vaginal operation. The nurses wore cotton gloves, and the obstetrician rub-

ber gloves. Owing to premature rupture of the membranes, the labor was instrumental, but the patient had a satisfactory convalescence.

[The fools are not all dead yet.—EDS.]

Dr. Thomas Osmond Summers, late surgeon-major in charge of the fever hospital at Santiago, and a noted yellow fever expert, committed suicide by shooting himself through the head at St. Louis, June 19th. Despondency, caused by the fancied lack of appreciation of his services by the Government during the Spanish War, is said to have been the cause. Dr. Summers was Professor of Anatomy in the St. Louis College of Physicians and Surgeons, and was the author of several standard medical works. He gained an enviable reputation in his successful management of the yellow fever epidemic at Memphis in 1878. The agony of mind that Dr. Summers evidently suffered previous to committing the fatal act, was shown by a most touching farewell letter to his wife, and his farewell to earthly existence is forcibly and poetically expressed in the following lines, which were found after his death:

PERDITI VITUM—VALE MUNDUM.

Good-night, Old World—Good-by to all your joys,
Your sorrows, pleasures, passions, pomps, and noise.
I leave you for the eternal silence of stars;
The deepness of unbounded space where bars
No longer hold the soul in durance vile.
Where naught can wound and nothing can defile;
Where the pure spirit shall despise the things
The sense on earth hath loved.
On wings bathed in the ether of eternity,
How sweet to feel from every passion free—
And yet it is an awful leap to take:
Into the great unknown perchance to wake
To greater woes, indeed, than those we have
And hoped to bury in the silent grave.
But still the great majority is there.
Why then should we turn pale with fear,
Or tremble when the hour supreme has come,
As soon or late it must be?—Man's final home—
The grave—at least gives rest from troubles here,
And we may hope for sweet oblivion there.
Then, Charon, come, I signal thee to-night,
Come—row me o'er the Styx, I've lost life's fight.

OSMOND.

—*Medical News.*

A Method of Rendering the Hands Surgically Clean.—Dr. Willard Bartlett (*Medical Review*) advises to cleanse the hands as fully as possible with hot water, soap and brush; then apply vaseline, which has been boiled in a glass jar, and rub off the surplus with a sterilized towel, taking particular care to rub the vaseline into the depressions around the nails and under the ends of the same. The hands may now be dipped with impunity into any antiseptic solution, with the result that the exterior of this impermeable coating is rendered aseptic and fit for contact with a wound, while the skin itself, with germs that may be upon it, is completely covered. The author claims that six months use of the above means of rendering the hands fit for use in surgery has given most satisfactory clinical results, and promises a bacteriological report in the near future. [Certainly the first part of the procedure is most excellent.]

Book Reviews.

Retinoscopy or (Shadow Test) in the Determination of Refraction at One Metre Distance with the Plane Mirror. By JAMES THORINGTON, M. D., Adjunct Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. Third edition, revised and enlarged. Forty-three illustrations, twelve of which are colored. Philadelphia: P. Blakiston's Son & Co., 1899. Pp. xviii-19 to 86. [Price \$1.]

THE first edition of this little book was published in 1897, and met with a gratifying success. The present edition contains forty-three illustrations, twelve of which are colored. It is not intended to take the place of the more elaborate works on skiascopy, but is mainly intended for undergraduate and post-graduate students. There are six chapters and a good index. The success of the previous editions has proved it to be a useful little work.

Warner's Pocket Medical Dictionary.—Warner's Pocket Medical Dictionary is an up-to-date work in every sense of the word. The latest medical terms have all been added, 10,400 words, terms and phrases are spelled, pronounced, and defined. The definitions are concise and comprehensive. Type bold and easily readable. Paper and binding neat and especially serviceable. Bound in flexible leather, round corners, colored edges. Complete tables of arteries (6 pages), bacilli, spirilli, streptococci, micrococci, bacteria (11 pages), muscles (24 pages), nerves (12 pages), dose table (14 pages). This latter comprises a complete list of all drugs with their doses arranged in apothecaries' measure and their metric equivalents. Every one of its 413 pages is well written and will prove a valuable addition to the library of quick reference books of any physician. It will be sent to any address upon receipt of 75c., stamps or money order.

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August 5, '99.

Mr.

U O M E

To date

Dollars.

An early settlement is requested.

Dr. W. T. S. Vincent.

The above has proven a good collector for me. I got it up some time since and it has become popular here. They don't have to look twice at it to know what it means.

DR. W. T. S. VINCENT.

Jacksonville, Fla.

—*Med. World.*

Mr. Smith (*bent into the shape of an interrogation point with hepaticcolic*)—

"Oh Doctor, dear Doctor—gee whizz! ouch! great Scott!

My guts are tied up in a double bow knot!

I'll give you all I've got in this world with delight,

If you'll help—O-oo-oo!—help me out of this plight!"

And the doctor soon eased him and solved every doubt,

And tenderly watched him, till "up and about."

The doctor (*one year later*)—

"Mr. Smith, I am very hard up, would you care

To pay me a little, if you have it to spare?"

Smith (*in an injured tone*)—

"Pay you? Ah yes, I remember it now,

But I'm sure I'd got well just the same anyhow;

You must wait till I've paid much importanter debts,

Such as club dues, and pew rent, and lost 'lection bets."

—*Dr. W. C. Cooper, in Eclectic Medical Gleaner.*

Review of Medical and Surgical Progress.

The Treatment of Hairlip and Cleft Palate.—This much-discussed topic continues to be the subject of a good deal of doubt in many minds as to when and how to operate for the various conditions that present themselves. Many of the procedures necessary are entirely within the range of the general practitioner, but there always remains a feeling of hesitation as to the methods most advisable to employ, and the most suitable time for operation. Towards solving such doubts, an authoritative review of the recent literature of the subject, and conclusive statements as to what seems best in the therapeutic suggestions that have been recently offered by various writers, will be of the greatest value to the busy practitioner.

Such a review of the treatment of harelip and cleft palate is given by Dr. J. Chalmers DaCosta, in "*Progressive Medicine*," the new Quarterly Review of Advances in Medicine, of which Professor Hare is the editor. From it we gather that the tendency is more and more towards early operation. The third or fourth month used to be considered the earliest suitable time to operate. Murray now counsels operation in the fourth week; Mumford and Heath think it should be undertaken not later than from the sixth to the eighth week. Where cleft palate exists it is not operated upon so early. The harelip is operated upon alone, and the persistent pressure made by the closed lip helps to lessen the gap in the growing bone. The operation on the cleft palate is put off for a while, but this, too, not nearly so long as it used to be. If the closure of the defect is delayed until the child has learned to talk, the peculiarities of speech, especially its offensive nasal character, will never be corrected. The authorities are agreed, then, that a cleft in the soft palate should be closed about the sixth month, and in the hard palate during the second year.

The practical suggestions collected from the recent literature of the subject by Dr. DaCosta are very valuable to the ordinary practitioner. Space will permit us to give but a few of them. The use of the knife in operation rather than the scissors, because the latter crushes tissue more, leaving its vitality impaired, especially at the edges where this is so important for subsequent union; the avoidance of pins or heavy sutures in securing proper apposition after the operation is advised, though these are faults of technique in this matter that we fear have been so ground into the present generation by text-book and teacher that failures of union due to these crude early methods will still continue to be frequent. The suggestion by Mumford as to anchoring the nares with shotted wire will remove a very common cause of failure due to the child's inevitable tendency to "turn up its nose" at and after the proceedings.

In double harelip it is advised to remove the intermaxillary bone by subperiosteal operation a week before the operation on the lip. If left it is liable to undergo necrosis. Its removal leads to some flattening, but this will not be great if the bone be removed by subperiosteal operation, and if but one side of the harelip be operated upon at a time. Among the directions for the operation for cleft of the hard palate, we note these pre-operative measures of precaution from Owen, which are sometimes forgotten, but of which the practical value is easy to see: Never operate unless the child is in the best possible health; remove carious teeth, adenoids and enlarged tonsils before operating, and operate whenever possible in fine weather, so that the patient can get out of doors soon afterwards. The neglect to remove such

ready sources of infection as carious teeth and those harborers of microbes, the irresistible tissues of adenoids and enlarged tonsils, is very probably the source of a good many of the failures in uranoplastic osteo resection.—*Progressive Medicine*.

Protargol and Argonin in the Treatment of the Purulent Ophthalmia of Infants.—Dr. Edward S. Peck, in the *Medical News* of January 21st, presents a very interesting report showing the efficacy of these new preparations of silver in the treatment of purulent ophthalmia. Of all the germicides employed in the treatment of this disease, silver nitrate has always held the first place, but, unfortunately it cannot be employed in the strength of solution required on account of its severely irritating properties. Silver nitrate comes about midway between protargol and argonin in the amount of silver contained, having 6.35 per cent., while protargol has 8.3 per cent. and argonin 4.2 per cent. The advantages of the newer preparations over the nitrate are thus enumerated by Dr. Peck: (1) The quicker destruction of the gonococcus; (2) the earlier disappearance of the secretion and the inflammatory process; (3) the resolution of the injured corneal and conjunctival tissues. Each of them is described as "a proteid compound, solutions of which cannot be precipitated by sodium chlorid, or by albuminous fluid." Protargol is a yellowish powder, soluble in either hot or cold water, producing a clear solution. Argonin is a white powder readily soluble in water on slight warming, but its solution is turbid. Protargol keeps well in powder or solution; while argonin decomposes if exposed to too much heat in the preparation of solutions, and when decomposed is very irritating; it is said also not to keep well in solution, even in dark bottles. Protargol solutions of 0.25 to 2 per cent. are generally used; while the most effective solution of argonin is 3 per cent. In the treatment of cases of purulent ophthalmia, the usual precautions in regard to isolation and the protection of the uninfected eye should be employed; ice cloths should be applied every minute or two, these applications being continued for an hour without intermission, when an interval of one, two, or three hours may be given, according to the severity of the attack. The eyeball, lid and conjunctival sacs should at first be thoroughly irrigated with warm, saturated solution of boric acid. The protargol solution, at first 5 to 10 per cent. strength, should be carried rather forcibly over the eyeball and into the folds of the conjunctival sac by means of a large pipette; it should at first be used four to six times a day. As soon as the secretion lessens in amount, or becomes shreddy, while its fluid part becomes thinner, the protargol solution may be brought down to 2 per cent. and may be used less frequently. A successful result of such treatment would be a limitation of the disease to three, possibly two, weeks.

The Action of Alcohol.—Professor Attwater, of Wesleyan University, who has recently conducted a series of experiments to determine the effects of alcohol on the human system, has reached the conclusion previously held by all but the most rabid and unscientific prohibition advocates, that alcohol taken in small and digestible amounts is a food. The experiments were mainly undertaken with a view to determine the nutritive value of alcohol. This substance was given in various forms, and pure alcohol was also administered with water or coffee. It was taken with meals. It was found that alcohol is oxidized in the same manner as any other food material, and is transformed into heat and muscular energy. Unlike, however, the fats, starch, and sugar, it does not form tissue, but gives forth energy. The experiments were not conducted for a sufficiently long period to demonstrate what

the effects upon the human organism might be of the habitual use of alcohol, yet many writers in the daily press have assumed that they have proved the innocuousness of alcohol as a beverage. This is, of course, far from being the case, and the promulgation of any such belief would be nearly as injurious as is the other more familiar extreme advocated so strenuously by intemperate prohibition orators.

The Saline Treatment of Dysentery.—Dr. Buchanan is quoted by the *Therapeutic Gazette*, from the *Indian Medical Gazette*, as being a very strong advocate for the use of sulphate magnesium in the treatment of dysentery. In his opinion it acts by simply washing out the great intestine, so removing the causes of inflammation and inflammatory products. The drug is best given, he believes, in one-drachm or two-drachm doses every one or two hours.

When to Stop the Drug.—It is necessary to secure free, gentle purgation. Dr. Buchanan finds that as long as the stools remain yellow and loose or soft, the drug should be continued for one or two days. After the mucus and blood have entirely disappeared the quantity may be reduced. As soon, however, as the stools become thin and watery, the drug should be stopped at once. It is surprising how soon after this the stools become soft and solid. He would, however impress upon medical subordinates that for the successful use of this drug the stools must be seen once a day or oftener. In no other way can the effect of the drug be watched, and in no other way can we know when to stop it. Stools containing sloughs should be washed in a white dish or in a tin painted white inside. The frequent occurrence of green stools or tarry black stools was noted in his cases. The green color Dr. Buchanan says he does not understand. He has read of it in cases of yellow fever.

Vomiting of Pregnancy.—Bacon (*Am. Jour. Med. Sci.*) writes at length on the subject of vomiting in pregnancy. For hyperemesis gravidarum, except the extreme cases, he insists upon absolute rest in the horizontal position, the position being constantly and persistently maintained, it often being advisable even to have the head lower than the feet; all nourishment is given without raising the head, and during vomiting the patient is turned on her side, on no account allowing her to be raised. Absolute rest equalizes the circulation and insures against unnecessary loss of strength and vital energy. In addition, in the severest cases he recommends the subcutaneous injection of salt solution. He injects hypodermatically one quart of normal salt solution twice a day, washes out the stomach every morning, and gives rectal injections of salt solution three or four times a day.

Examinations are made to correct, if possible, any pathological conditions existing in the pelvis. Applications to the cervix, as nitrate of silver, are used chiefly for the moral effect, while sinapisms, the hotwater bag or ice bag may be applied to the epigastrium. Nerve sedatives are to be used with great caution, while the effects of morphia he considers generally bad.

He believes there is no place for abortion in the treatment of hyperemesis gravidarum; that it is efficient only when unnecessary, and that those who most strongly recommend the induction of abortion warn against its employment in the last stages. The waste of energy from the shock and loss of blood is often enough to hasten the death of the patient.

The summary of his recommendations for treatment is:

(1) The abnormal irritability of the nervous system, including the vomiting centre, is to be allayed by keeping the patient in the horizontal

position, by attention to the skin, bowels and kidneys, using rectal and, if necessary, hypodermatic injections of salt solution.

(2) The hysterical condition which is so commonly found present should be controlled by strengthening the will and influencing the dominant ideas of the patient.

(3) All sources of peripheral irritation should be discovered and treated.

(4) In extreme cases subcutaneous saline injections serve the threefold purpose of (a) dilating the blood and increasing vascular tension; (b) eliminating toxins through renal and intestinal emunctories; (c) furnishing two most important kinds of food.

(5) Induction of abortion is never indicated. At a stage when it is safe and efficient it is not necessary, and in extreme cases it adds greatly to the danger, rarely stops vomiting, and can be substituted by the artificial serum.

Surgical Hints.—(1) Whenever you suspect the presence of severe internal injuries, never allow the patient to get up and go about very soon. It is always of great importance to secure as long a period of rest and quiet as possible.

(2) In bony ankylosis there is no pain in voluntary efforts of motion; in fibrous ankylosis there is. In the first, if the physician tries passive motion, the pain is only where his fingers compress the part; in the latter there is pain all over the joint.

(3) In any of the forms of chronic superficial inflammation of the tongue it is unwise to use caustics. These agents commonly increase the irritation, such cases showing marked tendencies toward malignant development, and must always be carefully watched.

(4) Never treat a severe burn on the flexor part of the joint without applying an appropriate splint to prevent as much as possible the occurrence of contraction. The need of skin grafting is especially great in all burns where the result of contraction would be deformity or disability.

(5) In dislocations at the shoulder-joint, a rapid test consists in applying a straight ruler to the acromion process of the scapula and the external condyle of the humerus. If it touches both joints at the same time there is dislocation, for normally the deltoid prominence prevents this.

(6) In young people complaining of pains and swelling in the neighborhood of a joint, especially about the long bones, examine very carefully to see whether the trouble is in the joint. If it affects the bone itself, the chances are in favor of malignant rather than arthritic trouble. If malignant the development is usually rapid. There are usually glandular enlargements. The tumor is uneven in density, the superficial veins increase fast, and the pain is more or less constant and of a shooting nature.

(7) To remove blood from the hands use soap only after washing in plain water.

(8) Sweeping and dusting should not be done just before an operation. Cover possible dust collections with wet sheets.

(9) In amputations loose muscles retract more than those attached to bone. Hence sever the loose muscles first, so that the ends may be of equal length.

(10) If the wound is clean leave it alone; the best surgeons apply but one dressing.

(11) Wash out the nasal passages before giving ether to subjects of catarrh.

(12) Scalp wounds, if large, should be stitched, but stitches should be removed early.

(13) In felon find out if the bone is attacked. Amputation of the terminal phalanx is best delayed until the septic process is overcome.

(14) In frostbite do not amputate early. Use thorough asepsis, and maintain the patient's strength.—*International Journal of Surgery*.

Circumcision—Its Moral and Physical Necessities and Advantages.—Dr. A. W. Taylor, of Beverly, read this essay. He said that the operation of circumcision was thirty-seven hundred and ninety-seven years old, the first operation having been done on a person 99 years old, and the next on his son of 19. The operation had evidently had its foundation in sound physiological reasons. There could be no doubt that the original divine decree had been intended as a sanitary precaution. Circumcision was the oldest of all surgical operations. Not all cases of congenital or inflammatory adhesions of the prepuce to the glans were continued to adult life, but circumcision and the removal of these adhesions contributed largely to the comfort of the individual. It was not necessary that the constriction should be complete or the prepuce narrow and long to give rise to severe nervous symptoms. The organ was exceedingly sensitive to mental or local irritation. Phimosis was responsible for a long series of formidable symptoms. The speaker was of the opinion that not infrequently marital unhappiness would be better relieved by circumcising the husband than by suing for divorce, and that a man, before marrying, should be examined with this operation in view should it be indicated.—*Medical Review*.

The Acme of Sexual Ignorance.—The *Quarterly Medical Journal* for July, quoting from the *Review of Reviews*, says that Mr. J. G. Frazer contributes the first part of an article on "The Origin of Totemism to the *Fortnightly Review* for April. It is based chiefly upon the book by Mr. Spencer and Mr. Gillen on "The Native Tribes of Central Australia," which has just been published by Messrs. Macmillan. Mr. Frazer says that the book contains a full description of the most extraordinary set of customs and beliefs ever put on record. The natives, whose customs are described by Messrs. Spencer and Gillen, are so devoid of what may be called ordinary common sense that, although they suffer severely from frost at night, they have never yet learned to use the furs of the animals which they kill, as clothing. They huddle naked around little fires, into which they frequently roll when sleeping, and burn themselves. Even this, however, is a less extraordinary illustration of their difference from the rest of mankind than is to be found in their theory as to the propagation of the species. Mr. Frazer says: "They have no notion that mankind is propagated by the union of the sexes—indeed, when the idea is suggested to them they steadfastly reject it. Their own theory to account for the continuation of the species is sufficiently remarkable. They suppose that in certain far-off times, to which they give the name of 'Alcheringa,' their ancestors roamed about in bands, each band consisting of members of the same totem group. When they died their spirits went into the ground, and formed, as it were, spiritual store-houses, the external mark of which is some natural feature, generally a stone or tree. Such spots are scattered all over the country, and the ancestral spirits who haunt them are ever waiting for a favorable opportunity to be born again into the world. When one of them sees his chance he pounces out on a passing girl or woman and enters into her. Then she conceives and in due time gives birth to a child, who is firmly believed to be a reincarnation of

the spirit that darted into the mother from the rock or tree. It matters not whether a woman be young or old, a matron or a maid, all are alike liable to be thus impregnated by the spirit—although it has been shrewdly observed by the natives that the spirits on the whole exhibit a preference for such women as are young and fat. Accordingly when a plump damsel, who shrinks from the burden of maternity, is obliged to pass one of the spots where the disembodied spirits are supposed to lurk, she disguises herself as a withered old hag and hobbles past, bent up double, leaning on a stick, wrinkling her smooth young face, and mumbling in a cracked, wheezy voice, 'Don't come to me, I am an old woman.' Thus, in the opinion of these savages, every conception is what we are wont to call an immaculate conception, being brought about by the entrance into the mother of a spirit apart from any contact with the other sex. Students of folklore have long been familiar with notions of this sort occurring in the stories of the birth of miraculous personages; but this is the first case on record of a tribe who believe in immaculate conception as the sole cause of the birth of every human being who comes into the world. A people so ignorant of the most elementary of natural processes may well rank at the very bottom of the savage scale.—*New York Medical Journal*.

Acetanilid Poisoning.—DR. THOMSON S. WESTCOTT (*Pediatrics*) reports a case of Acetanilid Poisoning in a female infant, 4 months of age, the child of a brother practitioner. She was a fat, well-developed baby, nursed entirely upon the breast; and during the hot weather of last summer she perspired freely and became chafed in the folds of the groins and the creases of the thighs, a mild eczematous condition existing in a small portion of the areas affected. For this the father had ordered a dusting powder of pure acetanilid. Three hours after the drug was applied the whole surface of the body showed a peculiar grayish pallor, and the lips were bluish, though the surface temperature was not thought by the mother to be lower than usual. The cyanosis increased for an hour and a half, the face became pinched and drawn in appearance, and the baby was in a profound slumber, from which she could not easily be aroused. When the father first saw her, four or five hours after signs of poison were first noticed, the cardiac action and respiration were not appreciably disturbed. The remains of the powder were not removed till this time. Recovery gradually ensued without any more active treatment than small doses of whiskey once or twice repeated. In this case the actual amount of surface capable of directly absorbing the drug was very small, and in no way comparable to the area of surface exposed in other cases so far recorded. The report concluded by deprecating the free use of so dangerous a drug under any conditions in young children, and considered that the existence of any break in the surface should demand the greatest caution in its use, if indeed this should not be judged a positive contraindication.

Experience With Acetanilid.—Dr. Broadnax, in *The Med. Summary*, after giving a case in which the effects of belladonna were not obtained until after the administration of two grains of acetanilid, adds:

"Recently I have been using one to two grains acetanilid and $\frac{1}{8}$ grain morphine with marked improvement in the effect of the morphine in those who cannot use it by itself.

A writer, a professor in an Eastern college, remarks, with some astonishment, the good effects of quinine where half the usual dose of that drug is used with two or three grains of acetanilid. There would have been very little need for astonishment had he half studied up the peculiar effect of the acetanilid, viz: relaxation of the capillary veins and arteries, allowing the

blood, which their contraction had squeezed out, to return to the surface. In fact, he could have had the same effect with acetanilid and 1-67 grain of strychnine, or the same of arsenic."

Tropon—A Maximum Nutrition at a Minimum Cost.—The unheralded advent of a dietetic debutant in the domain of medicine may not be attended with the flourish of trumpets and acclaim that some sensational discovery in serum-therapy secures, yet it cannot be denied that it is to the forced feeding of patients in plithisis that actual progress counts in combating this disease. Any substance or combination of food-elements which would furnish concentrated and complete nourishment in malnutrition should merit the consideration of every thoughtful physician.

Tropon, containing 90 per cent. pure albumen in the ultimate form of its absorption, must be reckoned as an important discovery and certainly a valuable contribution to food chemistry and food digestibility. When nutrition is deficient on account of exhaustion from disease or overwork, tropon supplies ample nutritive material and it can be readily adjusted to a mixed dietary. It does not impair normal digestive vigor nor induce the aversion and monotony arising from the exclusive use of other food-products. Tropon is capable of insuring prolonged and sustained nutrition, *per se*. It is a perfect and complete substitute for albumen in ordinary food. The clinical experiments of Prof. Finkler and his pupils have shown that it is best used as an adjuvant with other food. Tropon is palatable, well borne, and does not cause intestinal disturbances. On account of these many striking advantages, also its small bulk and low price, tropon should achieve the same measure of success here as in Europe, and thereby justify the reputation of its discoverer, Prof. Finkler, of the University of Bonn, Germany.

Doctors Strauss and Plaut, of Berlin, Klein and Schmelinski, of Hamburg, and Dr. Rumpf, of Gorbersdorf, give unstinted praise to tropon as an unrivalled food value in the various processes of digestion, absorption and assimilation.

All of the above authorities report a rapid increase in weight from its use. Dr. S. A. Knopf, of New York, in his recent work on Pulmonary Tuberculosis* says on page 241: "Of the many food substances which have been recommended recently as especially valuable in the dietetic treatment of tuberculosis, I have used most extensively and with most satisfactory results the new product, Tropon."

New Creosote Salt, Eosolate of Calcium.—Various derivatives of creosote have appeared since Prof. Summerboldt recorded his experience with creosote in tuberculosis, but none was found which retained the antiseptic properties of the creosote without the objectionable gastric disturbances.

Dr. Wendt has succeeded in producing the sulpho-acid-salts of the aliphatic esters of creosote and guaiacol, namely the eosolate of calcium, (calcium eosolicum), the eosolate of silver (argentum eosolicum), and the eosolate of quinine (chininum eosolicum).

Eosolate of calcium is an odorless and tasteless powder, which is *free* from the *corrosive* effects of the *creosote*, albeit retaining all the *antiseptic* and *anti-tubercular* properties of the *creosote*. It can be taken even by young children without the least objection.

The dose is from 5 to 15 grains three times a day. It is thought best to begin with the smaller dose in powder or capsule form, and gradually increase to the *maximum* of 60 grains per day for adults.

*Pulmonary Tuberculosis; its Modern Prophylaxis and the Treatment in Special Institutions and at Home." (P. Blakiston's Son & Co., Philadelphia, 1899.)

Dr. Huber's Discovery.—The following report from Ann Arbor contains statements that are important, if true:

New honor had just been brought to the medical faculty of the University of Michigan by the results of the research of Dr. Karl Huber. For a long time it has been an undeniable physiological fact that the nerves control the blood-vessels of the body, but the best physiologists have always questioned the existence of any nerves controlling the blood-vessels of the brain. It remained for Dr. Huber to make this important discovery, which will cause a number of pages in the standard works on anatomy and physiology to be torn out. At present, the methods of treating the cases which this discovery will affect are empirical, but the fact which Dr. Huber has given to the world will put medical knowledge and treatment of such complaints as apoplexy, epilepsy and various forms of headache, on a logical and scientific basis. Thus it is made possible for intelligent experiments to be made with a view of improving the present methods of treatment of the above diseases. Dr. Huber has prepared an article on his discovery which will be published this month.—*Med. Fortnightly*.

Pepsin in Burns of the Third Degree.—O. Waterman (*Therapeutische Monatshefte*, xiii, p. 30; *Merck's Archives*, March), of New York, gives the history of a case of a machinist who received a burn of the third degree caused by some boiling pea soup which was spilled over his left forearm. This was at first treated with carron oil and next day with iodoform gauze. At the end of three or four days the wound was covered with a dirty whitish purulent secretion with raised edge. Some places were curetted. Pepsin was then sprinkled over the arm and the whole surrounded by a gauze bandage. At the end of four days this was removed and the wound surface was studded over with healthy granulations, and here and there new patches of epidermis had commenced in this short time to develop. The wound was then again cleaned with antiseptics and another sprinkling of pepsin applied. At the end of about twelve or thirteen days the whole arm was healed and there was no scar tissue. It is also to be noted that the patient was anæmic and was suffering from tabes dorsalis.—*N. Y. Med. Jour.*

Carron-Oil Injections in Gonorrhœa.—W. E. Wamsley (*Brooklyn Medical Journal*, xiii, p. 182; *Merck's Archives*, March), of Brooklyn, at the suggestion of a patient, has tried linimentum calcis as an injection in gonorrhœa and gleet with unusually good results. The patient had used it for a burn and it occurred to him that it might be good in gonorrhœa. The doctor at first paid no attention to the suggestion, but later gave it a trial. He has since used it in twenty-seven cases of acute specific urethritis after a three-days' treatment with the compound copaiba mixture of the *National Formulary*, using it four times a day, and in every case a cure was effected in three or four days. In nine cases of gleet a complete cure was accomplished in from seven to nine days with the carron-oil injections only. The author warns against the danger of this emulsion becoming rancid if kept long, and advises that it be used only when freshly prepared.

Therapeutic Hints.

For Facial Pains From Carious Teeth.—Dr. Leo Greenbaum (*International Dental Journal*, May) recommends:

R Acetanilid..... 8 grains;
 Phenacetine, }
 Citrate of caffeine, } of each..... 15 "

M. To make eight powders. One to be taken every two hours.

Ointment for Burns.—By Dr. J. S. Brown:

R Boric acid..... ʒij
 Tannic acid..... ʒij
 Vaseline..... ʒij

Warm the mixture so as to apply it with a soft brush or sterilized feather.

The above ointment excludes the air; it is non-irritating, astringent and antiseptic, and keeps the parts soft and pliable. It also prevents the formation of scabs and resulting raw surface after their detachment.—*Rich. Jour. Pract.*

Taste of Potassium Iodid Disguised.—Dr. F. E. Ferrea of San Francisco, Cal., writes: "It gives me pleasure to forward you a formula for the administration of potassium iodid. I have given such a mixture to many of my medical friends who are more than pleased with it. One teaspoonful readily disguises the taste of ten grains of the iodid:

R Saccharin.....	ʒ iii	11	70
Fl. ext. orange peel..	ʒ ii	7	80
Fl. ext. yerba santa..	ʒ ii	7	80
Fl. ext. ginger.....	ʒ iv	120	40
Aqua, ad.....	Oiv	1920	

Mix. Add ʒ i (31.1 gm.) $MgCO_3$; shake; let it stand for twenty-four hours, filter. Color red with ʒ i (31.1 gm.) fl. ext. cudbear, if desired.—*Jour. A. M. A.*

Hay Asthma.—The asthma of hay-fever is often intense and demands measures for its relief apart from what may be done for the constitutional condition. A combination which has served this purpose most efficiently in a large number of cases is the following, which was originally advised by Mays:

R Phenacetin.....	gr. lxiv	4	16
Quin sulph	gr. xxii	1	43
Ammonium chlorid...	gr. xc	5	85
Pulv Capsicum.....	gr. iv		26
Strychnin sulph	gr. i		065

Make in 32 capsules and give one as needed.

The phenacetin here relieves the neurotic portion of the attack which is often very prominent. The quinin is antiperiodic. The ammonium chlorid is strongly expectorant and markedly relieves the congestion of the mucous membranes. The capsicum neutralizes the depressant effect on the stomach of the phenacetin, while the strychnin of course is the strongest general tonic with very powerful action upon the respiratory system.

Eneuresis.—Dr. M. G. Price (*Louisville Jour. Surg. and Med.*) claims to have had much success with this rebellious trouble, and gives below some of the remedies used by him.

R Belladonna tr.....gtt. v
 Ergot fl. ext.....gtt. x
 Nux Vom. tr.....gtt. v

M Sig: Repeat four times a day.

Sometimes, and the indications are not well understood, we will meet

success with: R potass. brom. gr. v., benzoic acid gr. v., to a child of two years, decreasing the dose, and afterward increasing, if necessary.

In adults, with pale, acid, and abundant urine, frequently voided, this condition is sometimes easily controlled by ten drops of nitric acid, diluted with water, before meals.

Relief has been obtained from strychnia sulph. grs. $\frac{1}{40}$, tr. cantharis gtt. i, three times a day.

Thoroughly cleanse the bowels with calomel gr. $\frac{1}{4}$, santonin gr. $\frac{1}{2}$, in tablets, giving one every hour until purgation, then give rhus aromatica, atropine, and ergotin, with the hope of success.

Occasionally it may be necessary to substitute duboisine for atropine, given until dryness of the throat. Best administered in one dose at bedtime.

Acid urine of small quantity, relaxed sphincter, and irritable mucous membrane; it would seem that

R Potass acetate gr. 15
Potass. Brom gr. 15
Atrophia sulphate gr. $\frac{1}{80}$

at one dose with considerable water t. i. d., ought to have a correcting influence.

Diarrhœa.—In view of the prevalence of diarrheal affections at this time of the year, the following formula will prove of interest. Dr. G. Joachim (*Archives of Pediatrics*, July, 1899) recommends:

Tanopine, 5 to 7 grains.

Calomel, 1-12 grain.

To be taken in one dose, 3 to 4 powders daily.

This medication proved of great value in 51 cases of acute intestinal or gastro-intestinal catarrhs.

Dr. G. C. H. Meyer (*N. Y. Medical Journal*) advises the following mixture in cases of dysenteric diarrhea in children:

Castor oil, 8 to 10 minims.

Powdered gum arabic, enough to make an emulsion.

Tannopine, 4 grains.

Camphorated tincture of opium, 10 minims.

Peppermint water, enough to make 1 drachm.

Sig. This amount to be taken every two hours.

The author also speaks very favorably of a mixture of bismuth, tannopine and Dover's powder for the treatment of chronic forms of diarrhea in adults where the stools are fluid and more frequent than natural.

GREENVILLE, S. C., April 15, 1899.

Messrs. Finger & Anthony, Salisbury, N. C.

GENTLEMEN:—The Surgical Instruments sent you for replating have been received. They are as good as new, the work was beautifully done, and I can safely recommend your work to the profession.

Respectfully,

JOHN H. MAXWELL, M. D.

Greenville, S. C.

320 Highland Avenue.

SANMETTO IN ENURESIS NOCTURNA.—While visiting my nephew in Illinois last Christmas he told me his little girl, six years of age, had always "wet the bed" at night, and asked me, "what shall I do for it?" I procured three ounces of Sanmetto, all the druggist had at the time; the second night she missed, and has had but three nightly emissions in two weeks. He wrote me last week, "we consider her cured, but shall keep an original bottle on hand and use if necessary." I have uniformly good results from prescribing Sanmetto in kidney and bladder complaints.

T. T. HUBBARD, M. D.

Saginaw, Mich.

SYR. HYPOPHOS. CO., FELLOWS

Contains the Essential Elements of the Animal Organization—Potash and Lime ;

The Oxidising Agents—Iron and Manganese ;

The Tonics—Quinine and Strychnine ;

And the Vitalizing Constituent—Phosphorous, the whole combined in the form of a Syrup with a Slightly Alkaline Reaction.

It Differs in its Effects from all Analogous Preparations ; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt ; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy ; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical*, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution*, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. *Fellows.*"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

MR. FELLOWS, 48 Vesey Street, New York.

When writing, mention the N. C. Medical Journal.

PUTREFACTIVE PROCESSES.

As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, LISTERINE possesses great advantage over other antiseptics in that it may be administered freely, being non-toxic, non-irritant and non-escharotic: furthermore, its genial compatibility with syrups, elixirs and other standard remedies of the Materia Medica, renders it an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life.

An interesting pamphlet relating to the treatment of diseases of this character may be had upon application to the manufacturers of LISTERINE.

LAMBERT PHARMACAL CO., SAINT LOUIS.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, AUGUST 20, 1899.

No. 4

Original Communications.

Synopsis of Annual Essay, North Carolina Medical Society, 1899.*

By CHARLES L. MINOR, M. D., Asheville, N. C.

IT is with humiliation that I come before you to-night, ladies and gentlemen, not, as I had hoped, to speak to you on the evolution and the future of our calling, but to make apologies for my inability to fulfill the honorable task you have laid upon me.

Ten days of severe sickness, from which I am but just recovering, have upset all my plans and left me to present myself with nothing but a pile of unfinished manuscript and a guilty conscience.

It is wise to stop sometimes in the rush of modern life and, turning, to search the past for the lessons it bears for those who faithfully study it. We are too apt to suppose that this wonderful century holds all of human knowledge, and I thought it might be instructive to show how much of what we often think is modern is but a resuscitation of the wisdom of the past. I had hoped to trace our calling from those prehistoric times when it took its rise from the God-given sentiment of sympathy for suffering; when primitive man, turning from the chase or from his ceaseless struggle with the powers of nature, stooped to succor some fallen comrade, or to bind up his wounds.

*The above synopsis was prepared to be delivered at the recent Annual Meeting of the Society at Asheville at the Wednesday night session, which was scheduled to begin at 8 p. m.

I was at the Battery Park Hotel on time and prepared to read the essay, and waited there till nearly nine, being then obliged to go to my house where I had to receive guests. The session, I believe, was called to order at 9:30, when it was impossible for me to be present, and I have felt that some explanation was proper from me, as I did not wish to be placed in the false situation of treating lightly the honor the Society had done me in electing me its essayist. Hence this note.

Owing to my fault the Secretary did not get the essay for publication in the transactions, I not thinking he would get them out as soon as he did; and when I was surprised by their receipt I felt that in justice to myself I should publish what little I had been able to write, in the State Journal. With very slight changes the manuscript is that which I had ready that night for delivery.

CHAS. L. MINOR.

Asheville, Aug. 10th, 1899.

I had hoped to show it to you, gradually taking on definite shape through long and weary centuries, handed by word of mouth, at first from man to man and then from race to race, clarifying as it went till in the hands of the Egyptians and the Hindoos it became a definite body of established practice, till at last it felt, as did so many other sciences and arts, the revivifying breath of that wonderful Greek intellect which, Midas like, turned all it touched to gold, and under its influence bloomed into the full perfection of the Hippocratic school.

I had hoped to carry you further and show the intense influence of Greek philosophy and Greek methods of thinking on its development and to show that the Greek of the age of Pericles had a system of practice that could compare most favorably in many details with that of the first quarter of this century.

From Greece I had planned to turn to Rome and to point to the effects of the practical Roman mind on Greek medicine; to dwell on Celsus and Galen and Aræteus, whose works are today worth reading, and who no less honored the profession they adorned in those by-gone days than have, in this century, Lister and Pasteur, Jenner and Virchow.

Swallowed up finally, as was all civilization, by the devouring wave of barbarism and darkness that swept like a blight over the fair plains of Italy, the efforts and struggles towards the truth of five thousand years were buried under an avalanche of ignorance and brutality.

Egyptian skill and cunning, Greek culture and philosophy, Roman practical sense and judgment, were lost to man and Truth seemed dead.

But, gentlemen, *Truth cannot die!* Lost it may be, buried it may be under a mountain of ignorance and vice, but it yet will find the light.

Just as Greek philosophy was kept from utter loss by the monasteries, so our profession was saved by the Arabs; studied by them in the translations of the old Greek and Roman masters, it was brought back to Europe when she began to emerge from the long darkness that followed the fall of the Eastern Empire.

And now, from century to century, by slow and painful accretions, the body of medical truth grew, hampered and hindered in a way we can scarcely appreciate by the superstition and slavish worship of authority of an age when a Galileo only escaped the stake by denying his convictions, it yet advanced; however narrow the age, Truth has never found a lack of worshippers who would seek and serve her at any price, men who, when to dissect the human body was a criminal offense (if our legislators in North Carolina continue it looks as though it may become so again), dared to take their lives in their hands and for her sake study anatomy on the cadaver like the great Vasalius; men who, when an all powerful church thundered against them and damned them with her anathema, yet dared to persevere.

Truth must and will grow; like a seed lodged in the crevice of some huge boulder, it grows and grows. The rock may be huge, the seed pitifully

small; but bearing in itself the germ of life, that seed must grow and expand and sooner or later the rock of ignorance and prejudice is rent apart.

Against such odds as these it was that our profession grew, till, ridding itself slowly of the fallacies and superstitions that in that age attached themselves to it, it at last, in the middle of the last century, began to emerge into the light of Freedom and Truth.

How many men, think you, have suffered torture and death, mental or physical, for every truth that has been discovered? How much suffering have her disciples born in their struggle upward, a torture and suffering the benefit of which every human being of to-day unconsciously participates in?

We have come onward and upward so far that when to-day we see the greatness of the advance we are tempted to think that the goal is won, that all truth is ours, that we have reached in this wonderful 19th century the maximum of possible medical attainment; forgetting both those who shall come after us and surpass us by building on our work, and those who have preceded us and by their sufferings and faithful efforts made possible the achievements of to-day.

In Surgery, in Bacteriology, in Diagnosis, in Chemistry and, indeed in every branch, the advances are such as our forefathers dared not dream of; we *do* what they *dreamed*; but gentlemen, had they not dreamed could we have done?

Let us not forget that the bacteriologist who to-day differentiates germs with exquisite nicety and brews subtle antitoxins to give, not to take life, is but a disciple of old Anthony Loewenhoeck, of Amsterdam, who with his primitive microscope laid two centuries ago the foundations of the science his follower to-day adorns; that the accomplished laparotomist who with every means at his disposal that science can suggest and philanthropy supply, operates with skilled assistants on cases that our fathers dared not touch, is but a disciple of old Ephraim McDowell in the backwoods of Kentucky, with only himself and his good judgment to fall back on, and a human life dependent on his skill.

We stand at the end of a great century, and looking back on all that has been accomplished, our hearts swell with pardonable pride that we have been allowed to live and act however humbly in such an age, an age so distinguished that it might with justice be called the age of Pericles of our profession.

But if the attained is great—and who will deny it?—what is it in comparison to the greater attainable which lies before and tempts us to pursuit?

Think of the unsolved problems of Physiology, of the vast realm of Neuro-Pathology yet scarce touched, of the chemistry of the organic compounds yet so imperfectly known and of fifty other branches where our knowledge is as zero, and we can only cry *Ignorabimus*.

That sooner or later these problems will be solved, who that studies the history of our glorious profession can doubt, for does it not teach us that even in its darkest hours Medicine has never lacked sons whose burning love of

knowledge has urged them to a ceaseless search for Truth? It may not be ours to win the deathless laurels that come to the great discoverer, not ours to carve our names high among the leaders of the world's medicine, a century produces but few so blessed; enough, if on our daily rounds it is ours to slowly and accurately gather those facts on which the great advances of our profession are built, and without which, however great the individual genius of isolated workers, they must cease; enough, if by careful observation and systematic record we help to add to the sum of that accumulated knowledge from which shall be born the Truth.

The history of medicine, on which I had wanted to talk to-night, teaches plainly that the advance of our profession does not depend on great discoveries alone, that the solitary, unknown worker, gathering facts, is as important, yes, *more* important, than the greatest discoverer the world has ever known.

Let us, then, take pattern after the great father of our craft, the immortal Hippocrates, who thought no observation too slight for faithful record, no fact too trivial for honest study, and let us ever keep in our minds the wise old saying:

"He alone who observes can diagnose; he only who can diagnose can cure."

65 French Broad Ave.

A Case of Abdominal Pregnancy of Nearly Two Years' Duration.

By M. BOLTON, M. D., Rich Square, N. C.

II WAS sent for on the morning of July 14th, 1896, to see M. J., a negro woman, aged about twenty-two years, mother of one child, born at full term of normal labor. She stated she had a chill the previous afternoon, and had high fever and labor pains all night. She had slight fever at the time of my visit, but was better of the pains.

Her last menstrual period was about the first of the preceding March, and she was apparently four or five months pregnant.

She was a healthy looking woman of average size, and I saw nothing of special interest in her case. She said her symptoms up to that time had been the same she experienced in the early months of her first pregnancy, two or three years before. I considered it a case of malaria with threatened abortion and gave her a laxative, a few five-grain doses of quinine and bromide of potassium, and she was well in a few days, except occasional pains and tenderness in the region of the womb.

I did not see her again until expiration of the period of gestation, though her husband came to me several times to get medicine for the relief of "the same pains." Two or three weeks after her expected labor she came to my office one day, as I was preparing to go to an urgent case, and I did not examine her. She said she had not felt the child move in fifteen or eighteen days and that she had reduced somewhat in size and her "sickness"

had come on. As she seemed to be in perfect health, I did not give her any medicine, but directed her to go home and take proper care of herself, and if everything did not come on all right in a few days to notify me and I would give her such treatment as might be indicated.

She and her husband belonged to that *large* class of indifferent, non-paying, yet not charity patients that afflict country practitioners so much. She went off and never returned and did not send me any message. I became interested in her, however, and made inquiry about her, and learned that she had fallen in the hands of a "trick doctor," as they usually do when anything at all uncommon occurs.

He told her she was not in "the family way," but had terrapins, lizards and all manner of things in her. I did not see her again until late in the summer of '97, when I met her on the road and asked her a few questions.

She said she had been well and at work all the while. She had shrunken considerably and said the "lump" in her had gotten lower and had remained about the same size several months. She had menstruated regularly, and at times profusely, since her last visit to my office, but had passed nothing else from her uterus.

February 10th, 1898, her father came to my office; said she had been very sick three or four days and was about to die, and wanted to know if I would go out and cut her open after she died and see what was really in her. I told him I was really anxious to know the nature of the case, and would be glad to make the post mortem examination.

On the morning of February 12th I was notified that she was dead. I took a friend with me and went out to make the examination. On exposing her person I discovered a rather profuse and exceedingly offensive discharge from the vagina, which, I was informed, had existed five or six days, and that the fatal attack dated from the commencement of this discharge. On cutting through the abdominal wall I came down on the most offensive mass of putrefaction it has ever been my lot to witness. There was the denuded skeleton, hair and pus, but no trace of any of the soft parts. The walls of the sac were extremely fragile and gave way under the slightest manipulation. I sponged out the pelvis with a view of finding the site of the uterine rupture, but the structures gave way so easily I did not satisfy myself on that point, but thought it was through the vaginal cul-de-sac.

These people lived on a cotton farm, and I was told that this woman picked out cotton during the seasons of '96 and '97. Her husband said she picked as much every day in the season of 1897 as he did.

To Remove the Odor of Iodoform.—Edwin Ricketts, M. D. (*Lancet-Clinic*), says: "To do away with the 'smell' of iodoform that comes to the hands of the surgeon for handling it, I find that to rub on, after use of soap and water, a teaspoonful of vinegar (found in every household) does away, promptly, with the very disagreeable odor."—*Med. Standard*.

The Doctor, The Druggist, Proprietary Medicines, Patents, Etc.

By WILBUR F. STERMAN, M. D., Winterset, Ia.

WHEN the practicing physician must compete alone and single-handed against public credulity in all forms of quackery and charlatanism and the thousand and one advertised patent medicines that are recommended and guaranteed to "Cure all ills that people have, and just a trifle more," he is using generally in his prescriptions many forms of different combinations in order to save time, pencil and paper, that are really more injurious to his future welfare than these.

Although a majority of these bear a formula, they are prepared for special profit, and are protected and sold entirely too high for such general adoption as many of them enjoy. A major per cent. of them are good combinations, but the same ingredients, written in a prescription and properly compounded by the retail pharmacist, are equally as good if not better, and the home druggist is not thereby robbed of his profit, the remedies can be sold cheaper, and your patients thereby protected and not given just cause for complaint.

Many of these proprietary preparations have directions in full printed on each bottle, and the laity soon learn to buy them direct from the retailers, and use them the same as straight-out patent medicines.

The practice of medicine, including the entire therapy thereof, should be confined by law to actual diagnosticians at the bedside, and any druggist or pharmacist who recommends and sells any patent or proprietary medicine, or personally prepared nostrum, for any ailment or disease, the physiology, pathology, etiology or symptomatology of which he knows nothing about, should be as amenable to legal punishment as any other person violating the laws of any State regulating the practice of medicine within its borders.

It is impossible, however, to enact laws to prevent the American people from being humbugged, for they are not only willing, but determined to have it persistently done, and are anxious to pay somebody a hundred prices to successfully do it, and they will rush pell mell over each other to any new fad, or "Pathy," to lavish their money on the most mythical "Ism," and the most stupendous prevaricator.

Testimonials of the clergy, senators, congressman and numerous "Ex-officio," and even of eminent (?) physicians also, are bought up with chips and whetstones and published by the thousand to aid them in repeating the song of the spider to the fly.

Osteopathy at present heads the list of systematically practiced deception, with psychopathy or some other craze soon to follow, for miraculous cures are daily reported by the adjustment of some three or four dislocated lumbar, dorsal, or cervical vertebræ, and when the limit of the axis and the atlas have been passed, the true source of the trouble and the seat of the disease is near at hand, and the treatment more difficult, on account of lack of material there to work on.

The list of these mentally unbalanced people who are constantly running after some fake to throw their money at is not confined to the poorer, nor to the ignorant classes, but embraces many who *claim* to have good sense and good judgment, but their actions do not bear them out in the claim.

Pick up a city daily paper and look at the list of thirty or forty advertisements of quack men, and quack medicines contained therein, figure up their cost and charge the sum to the curious and credulous public.

Read a few of the recommendations from weak-minded men and women and note the kind of questions propounded and the terrible symptoms given, and they will almost make you feel sick yourself, and will certainly give you a pain (in the rectum).

A man comes into town from the country and instinctively or intuitively drifts into the local drug store; he sees a physician pass the door and remarks: "There goes Doc so and so; I must go around and see him about my wife; she is down sick, and needs some medicine." The druggist questions him in regard to her case and in an offhand way remarks: "Oh, I can soon fix you out on that matter; here, take out a bottle of — and give it to her according to directions, and she'll soon be all right."

He is only afraid the man may get a prescription, and go to some other store to have it compounded.

Retail druggists are also too prone to prepare various nostrums for headache, colds, coughs, grippe, malaria, or to sell acetanalide or other depressing or dangerous agents in bulk, or powder ad libitum, to the general public. Now all this kind of thing should be stopped at once, and made punishable by law, and the physician thereby better protected, patronized and remunerated, and aid him in making an honest livelihood.

But the wholesale manufacturer of bottled, labeled and protected compounds is to-day the worst menace to the retail druggist, and to the general practitioner also, in so far, as so soon as his remedy is introduced and used by the profession and learned by the laity, he is rendered absolutely independent and can furnish it direct to the trade and general public, if considered expedient and more remunerative. The medical journals are all filled with advertisements of various complicated technical and complex compounds, mostly incongruous conglomerations of incompatibilities, consequently very difficult of successful substitution by the average pharmacist, and these are prescribed by the busy physician in order to save the time required to write out each ingredient separately in a prescription, and perhaps one-half of the compound is in reality superfluous and not really indicated in the treatment of the individual case, though none of the unnecessary ones may be contra-indicated. These, as a rule, are costly and, therefore, dissatisfactory to the retail druggist to handle, to the physician to prescribe, and to his patients who are compelled to pay the exorbitant prices.

Unless more mutual consideration and unanimity of purpose can be established and maintained between the retail druggist and the physician, the time is near at hand when every practitioner must carry his own line of

remedies, and compound his own prescriptions, in order to protect himself against substitution, refills, proprietary remedies, nostrums, patent medicines and counter-prescribing. True, a certain percentage of these compounds and complex preparations are very good, and so long as the cost to the retail dispenser and the consumer is not exorbitantly high, their quality good and their therapeutic properties desirable and satisfactory, the foregoing remarks do not apply, but only to those, whose name is legion, where the direct profit to the manufacturer is double or quadruple what it should be, and the doctor prescribes them, the patient uses them, and the druggist handles them at a loss.

Should Nerve Stimulants be Administered to Pregnant Women.*

By S. L. PERKINS, M. D., Creston, N. C.

THE subject I have selected asks a question of vast importance, as it has to do with the proper development of millions yet unborn, but it has failed of recognition at the hands of medical writers and practitioners. Medical writers do not fail to note the fact that nervous disturbances are on the increase, but in their enumeration of causes they fail utterly to mention that which, in my judgment, is capable of great evil.

A high-strung nervous system is one of the legacies of our civilization, or rather of the stage of civilization to which we have attained, and I shall endeavor to show that if proper effort is put forth, the undue development of the nervous system at the expense of the muscular, might be held in check. The time to begin this effort is during foetal life.

All physicians are frequently called on to treat pregnant women of a very tense nervous system. Then it is that the doctor stands face to face with the grave question (and responsibility): What effect will the remedies I am about to use have upon the foetus now in process of development?

This brings us to the subject of this paper, "Should," Etc.

I assume the negative, and contend that nerve stimulants should never be used under these circumstances unless nothing else will meet the demand. I am convinced that the doctor is not justified in prescribing this class of remedies for the pregnant woman until he has exhausted all other means at his command for the relief of his patient. We are warranted in assuming that this class of drugs will produce the same physiological effect upon the foetus that they do upon the mother, though perhaps in a less degree, and their continued use at this time will have a tendency to cause an abnormal development of the foetal nervous system; a nervous development out of proportion to that of the muscular system.

(That drugs do have the same effect on the foetus as on the mother must stand as a fact until disproved by investigators.)

Those born with an abnormally developed nervous system (tense) belong to an unfortunate class who must face the stern realities of life in the great march of mankind hampered by a lack of balance between the muscular and

*Read before Ashe Co. Med. Society, June, '99.

nervous development. The indelible influence impressed upon the individual by the state and condition of the mother's mind during pregnancy is well known.

Therefore the law of nature demands that the doctor make every effort in his power to cause proportionate development of the nervous and muscular system—a condition too often absent among present-day civilized people. When the nervous system preponderates suffering is increased, pain is felt more keenly and is harder to bear, and all varieties of disturbances are at a higher tide, and the tedious train of evils that follow such conditions are but a natural result of the excessive development of nervous elements.

The medication given the mother during pregnancy, and to the child during infancy and childhood should be carefully selected, and as little as possible given. The point I want to make is, never give medicine unless it is needed, and when it must be used give as little as possible, and never give a stimulant when other remedies will do as well. By so doing we throw nothing in nature's way and allow (and aid) her to take her normal trend and restore man to a better state than that in which he now finds himself.

The dietary stimulants should also be considered, but I shall omit them in this paper.

SELECTED PAPER.

Chlorosis.

By DR. S. ASCHER, Hamburg, Germany.

[Translated.]

ALTHOUGH chlorosis in its typical form, which occurs especially in females at the time of puberty, is generally amendable to medical treatment, there are cases in which all our efforts to effect a cure are unattended with successful results. We are inclined in such cases to call to mind the explanation given by Virchow, who assumes that chlorosis frequently depends upon a congenital narrowing of the arteries; yet this explanation is of little aid to the practical physician. If we remember that the action of iron—our *panacea in chlorosis*—is yet a mooted question, and that doubt still exists as to whether iron is capable of absorption by the stomach or intestines, it is natural that we should welcome preparations which promise to give better results than those in previous use.

It is well known that in the hæmoglobin of the red corpuscles *manganese* is constantly found in connection with iron. Opinions have always been divided as to the significance of manganese in the blood, as regards the question whether manganese is really a constant constituent of hæmoglobin or an occasional one. We know that the function of the red corpuscles to take up oxygen is chiefly attributable to the presence of iron, but an active part in this direction has also been ascribed to *manganese*.

While in chloride of iron one-third of the chlorine is active, this property belongs to a still greater extent to manganese chloride, a combination of chlorine and manganese corresponding to that of chlorine and iron. Iron chloride is a much more stable combination than manganese chloride, which decomposes even at ordinary temperatures and gives off one-half of its chlorine; it is, therefore, *quantitatively more active than iron*. Manganese as a constituent of the blood exerts a *stronger polarizing effect upon the oxygen* and gives off the latter more readily than iron.

Manganese is, therefore, a more powerful oxidizing agent than iron, and absorbed into the body, will exert an energetic assimilative action.

Joh. Kugler, in 1838, was the first to recommend the *manganese* salts in scrofulosis. He made the observation that persons who handled manganese oxide in a chlorine bleachery enjoyed an immunity from diseases of the skin, bones, and glands. In 1844 Hannan found a diminution of *manganese* in scrofulosis, and to a still greater extent in anæmia and chlorosis. In chlorosis he found that the quantity of iron was sometimes chiefly diminished and sometimes that of manganese. *He therefore distinguished chlorosis from lack of iron and manganese.*

Although this schematic classification cannot be accepted, other investigators of more recent times have established a connection between chlorosis and a deficiency of the quantity of *manganese* in the hæmoglobin.

In 1852 Petrequin recommended *manganese* in combination with iron. He maintained that in all cases in which iron is indicated but proves ineffective *there is a deficiency of manganese in the blood*. Among recent authors Rühle, of Bonn, has warmly recommended the *combination of manganese with iron* in the treatment of chlorosis, and lately *manganese* has been employed with much success for amenorrhœa in young persons between the ages of eighteen and twenty years.

Notwithstanding these high commendations from various sources, *manganese* was not generally adopted in the treatment of chlorosis, and in cases when iron failed to act, resort was had to purely dietetic measures. *The reason for this was that no preparation existed in which iron was combined with manganese in a readily absorbable form*. Such a preparation, however, is Gude's Pepto-Mangan, and the results obtained from its use by myself and others are exceedingly promising.

Gude's Pepto-Mangan has been tried by me and a few colleagues in various diseases associated with a depreciated condition of the blood, altogether in *eighty cases*, and in the following I will give a few exact data concerning the observation thus far made by us.

In the simple chlorosis of females during the period of puberty we have employed Gude's Pepto-Mangan in about thirty cases with uniformly good results. The remedy was always well borne, digestive disturbances were never observed, the marked symptoms of headache, vertigo, palpitation of the heart, and loss of appetite were improved within a few weeks. The bodily weight increased by one half kilogramme (about one pound). Among the histories of cases at hand the following appear especially noteworthy.

Miss Sched, aged 22, suffered from œdema of the legs, general weakness, marked anæmia; menses absent for several years. Prescribed rest, vigorous diet, massage, and Gude's Pepto-Mangan three times daily. After six weeks' treatment œdema disappeared, menses returned, patient felt better, had better color. Four weeks later menses became abundant, although the Pepto-Mangan was no longer employed.

Miss R., aged 28, seamstress, marked anæmia, nervous dyspepsia, fluor albus. Besides massage, rest, etc., Gude's Pepto-Mangan, one teaspoonful thrice daily. After three weeks, fluor disappeared, menstruation more abundant, patient's condition perceptibly improved. The disagreeable backache had ceased, appetite and condition of bowels normal.

Miss Clara F., aged 25, weight 52.5 kilogrammes (about 110 pounds); great disturbance of nutrition and anæmia; had suffered for five years from amenorrhœa, nervous dyspepsia, general neurasthenia and nervousness; complexion sallow owing to constipation. Gude's Pepto-Mangan administered (altogether 1,100 grammes, 36 to 37 ounces). Result very favorable: weight increased one-half kilogramme (about one pound) every week, appearance excellent, general condition much improved; constipation relieved by extract frangul fluid. During the eighth week menses returned; headache and stomach troubles have disappeared; patient has great hopes of perfect restoration to health.

This preparation also proved very serviceable in cases of anæmia associated with more or less marked scrofulosis. The abscesses of the skin healed, eczema of undoubted scrofulous character disappeared. The following case is characteristic:

Margaret G, aged 12, a weak, anæmic, and scrofulous girl, had suffered repeatedly from tonsillitis, coryza, anorexia, glandular swellings, and had a pale and sickly appearance. Prescribed for a period of six months three baths containing Kreuznach mother-lye thrice weekly, and Gude's Pepto-Mangan one teaspoonful thrice daily. In all 1,000 grammes (two pounds) of the liquor were used. The girl now looks well, healthy complexion, red cheeks and lips, appetite good, swelling of glands has almost entirely disappeared.

I have further employed Gude's Pepto-Mangan in that form of anæmia, which is found in young women as a complication of uterine trouble or as consequence of profuse loss of blood from repeated abortions or childbirths. The effect was always uniformly good. The patients, who belonged for the most part to the working class, after three to four weeks' use of the Pepto-Mangan, were able to resume work (although their nutrition could only be slightly improved), and were able to accomplish as much as formerly.

It is well known that during the course of chronic malaria marked anæmia develops, which is extremely obstinate to treatment and frequently defeats all efforts to effect a cure. Even after the attacks of fever have subsided the anæmia quite often persists for a long time, and the patient becomes greatly reduced in health.

In this condition, where, as I have said, other preparations of iron frequently leave us in the lurch, Gude's Pepto-Mangan has rendered us good service. We have had occasion to employ this remedy sixteen times in anæmia following malaria, and report the following two cases by way of illustration:

Margaret Sch., aged 26, unmarried, scrofulous tumors of the neck, anæmia following malaria, gastric catarrh; bodily weight 58 kilogrammes (about 122 pounds). Duration of treatment two months; 800 grammes of Pepto-Mangan used with material and continuous improvement. Vomiting and headache have disappeared, appetite good, increase of weight two kilogrammes (four pounds).

Bertha Pr., aged 10 years, 20.5 kilogrammes (about 43 pounds), marked anæmia after malaria and scarlatina, diphtheria. Five hundred grammes (one pint) of Gude's Pepto-Mangan administered in six weeks. Considerable improvement of the general condition. The patient had so much improved that treatment was discontinued, thinking it no longer necessary. Increase of weight 1.5 kilogrammes (three pounds).

That Gude's Pepto-Mangan is also an excellent remedy for children is demonstrated by the above observation, as well as the following one:

Annie and Willie D., twins, 2 $\frac{3}{4}$ years old. Rickety, pale and unhealthy color of face, appetite poor. Gude's Pepto-Mangan in wine, one teaspoonful thrice daily, altogether 300 grammes (ten ounces) used. The children take it gladly and it is well borne. Appetite has improved.

Finally, it may be mentioned that I have tried the Pepto-Mangan in several cases of pulmonary tuberculosis. Of course, the effect here was only relative, yet frequently we were able to improve the appetite and effect a slight gain in weight.

In the foregoing remarks I have somewhat in detail given my experience with Gude's Pepto-Mangan, and I have done this because I am convinced that it is worth while to institute further trials with this preparation. The observations thus far made were very encouraging. I will not attempt to define what part manganese plays in the new preparation. At any rate, it appears that, compared with other ferruginous preparations, Gude's Pepto-Mangan has a better and more certain effect, and is characterized by the fact that it does not produce disturbance of the digestive tract. It would be interesting to determine by experimentation that under the use of this remedy the quantity of manganese in the blood is actually increased. Such an experiment would definitely prove that Hannan's theory of chlorosis based upon deficiency of iron and manganese in the blood is perfectly correct.—*From the Allgemeine Medizin, Central Zeitung.*

Operating Under Difficulties.—While several physicians of Baltimore were performing an operation on a child not long ago, an explosion of gasoline in the next room set fire to the house. The fire department turned out and put out the fire, the physicians meanwhile continuing the operation until the heat forced them to remove the patient to another room.

North Carolina Medical Journal.

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Editorial.

THE YELLOW FEVER OUTBREAK.

The prompt suppression of the threatened epidemic of yellow fever at Hampton, Va., is a convincing argument, if any one doubted if before, that the national Government is the proper party to handle such matters. The so-called "shot-gun quarantine" should be relegated to the past, as at best a miserable substitute for an enlightened and scientific management of epidemic diseases. Panicky municipal or State authorities often recognize a danger when there is none, and as often neglect essentials while fighting the non-essentials. Usually without proper medical facilities, and always susceptible to the clamors of a frightened populace they are incompetent to manage a matter seriously affecting not only themselves, but the country at large. The story in circulation which attributed the outbreak at Hampton to the presence there for a few days of an individual lately arrived via New York from the West Indies, and who left a short time before the disease appeared, does not seem to have been substantiated, and has called forth a protest from Health Officer Doty of the port of New York.

Dr. Doty states that, "Since May 1, every passenger arriving on vessels from Cuban ports has been held at quarantine for a period of five days from time of embarkation, unless he or she presents an immune certificate issued by a representative of the Marine-Hospital Service at the point of departure. Not one exception has been made. If the passengers arrive on a United States transport, the vessel is detained at quarantine with the passengers aboard, under the constant supervision of a member of the medical corps of the United States Army. At the expiration of five days from the time of embarkation and after a report from the surgeon in charge that all are well,

the passengers are brought to the deck and personally examined before the vessel is released. In the case of merchant vessels all passengers who do not hold immune certificates are removed to Hoffman Island and detained there under the observation of health officers until the completion of the above period, and are then only released after a careful inspection. It is believed that five days is the maximum period of the incubation of yellow fever. The disease usually appears on the second or third day. The statement occasionally made that the period of incubation of yellow fever extends beyond five days is not accepted by those who are familiar with the disease."

The quarantine station at New York is generally regarded as a highly efficient one and we are glad to know that no blame can be attached to it in the present instance.

THE FIRST DUTY OF THE AMERICAN PHYSICIAN.

The *Philadelphia Medical Journal* asks this question, and answers that his first duty is to join the American Medical Association and attend its meetings. The reasons given are thus cogently stated:

"It is hardly necessary to repeat what we have so often urged, that the Association is the gravitational centre about which must gather the unitizing tendencies and powers of the profession. It is plain to every one that our professional disunity is at present our greatest curse, and that it is the fundamental cause of our powerlessness in the face of the evils besetting us. Quackery, medical humbugs, sectarianism, the nostrum shame, and innumerable spawnings of medical delusions and fanaticisms—all these exist by our leave, and almost solely because of our disorganization. Far more than this, our awful death-rate is almost the direct product of this same lack of unity. We have the knowledge whereby the American death-rate could be reduced one-half, but we have not the power to reduce it. We have not the power because we have no professional voice, no corporate unity by which we can turn our knowledge into active prophylaxis, through the law-makers and administrative officers of the national, State and civic governments."

No one can deny the obvious fact that in this country to a very large extent the medical profession possesses no power to influence the enactment of laws, even such as pertain directly to medical matters. We have no medical body analogous, for instance, to the British Medical Society, which in England represents a united profession. Our nearest counterpart to such an organization is the American Medical Association. Our contemporary proceeds to show why this latter professional body has not realized in the past what its friends hope it may do in the future. The fact that only from five per cent. to ten per cent. of American physicians are members of the Association, and that ordinarily only about one-fifth of these are present at any of the meetings, is certainly not encouraging for a national medical organization that is to make its influence felt both on the profession and the people. There are many obstacles in the way of such a consummation, other than a certain arrogance which is said to have characterized the Association in the past. We have an abiding faith, however, that it will in time become the powerful factor for good, both to the profession and the public, and thus realize its original purposes.

Book Reviews.

Skiascopy and its practical application to the study of Refraction, by Edward Jackson, A. M., M. D., Prof. of diseases of the eye in the Philadelphia Polyclinic and College for Graduates in Medicine, surgeon to Wills Eye Hospital, member of Am. Ophth. Society. 26 illustrations. The Edwards & Docker Co., Philadelphia, Pa.

This little book was written to bring about the more general adoption of skiascopy as an essential part of the examination of ametropia. Skiascopy is an objective test, independent of the patient's intelligence or visual acuteness and, in the hands of one skilled in its application, is in many cases, if not in all, of great help in determining the refractive condition. The author is well known as an untiring and gifted worker in the field of ophthalmology, and his little book of over 100 pages is characteristic of the man; it is clear, concise and thorough and a careful study will reward one desirous of "knowing" spiascopy. The printer's and binder's work is well done.

Hay Fever, Its Successful Treatment. W. C. Hollopeter, M. D. Second Edition, \$1.00. P. Blakeston, Son & Co., Philadelphia, Pa. 1899.

This book of 150 pages contains a resume of the literature of hay fever, (144 pages) but gives the reader nothing new. In the pages devoted to treatment the author advocates "complete sterilization of the entire nasal cavity," and for that purpose advocates spraying the nose with Dobell's sol. menthol, camphor, hydrogen, per oxide, albolim, etc. He advises the practitioner "to scrub most carefully and gently every portion of the mucus membrane, being sure to reach between the turbinates, and all around and over every prominence," and after thus rendering the cavity clean to spray it with some of the above drugs in alboline or water.

We fail to see any "new treatment" in this, and we must announce that we are skeptical concerning the "complete" relief which the author claims he has proven in over 200 cases.

The book is handsomely bound in blue and gold, and the paper and printing are models of bookmaking.

The Literary Digest, August 12th, contains papers of interest on Faith-Healers and the Law, Secretary Gage and the Civil Service, Michigan Press on Alger, and Pensions for Railroad Employees, a scheme being introduced by the Pennsylvania system. Also the Photograpy of Lightning, Telegraphy in China, Electrical Treatment of Cancer, Ingersoll and the Religious Press, An International Petition to the Czar in Regard to the Harsh Treatment of Finland, Kaiser Wilhelm and the French, Our War Through Foreign Eyes, and many others.

Dixie Magazine, for August, contains a historical sketch of Frank B. Mayer, Maryland's historical painter, illustrated with seven reproductions from his paintings. "The Athens of America," as Annapolis was called in our Colonial days, by Elihu S. Riley, is an interesting, illustrated, historical ramble around that old town, and among its people when Washington was there. "Southern Potteries and Clay," by H. O. Turner, illustrated, tells what has been and is being done in pottery work, and of the existence and location of China clay ledges in the South, and should be of interest to all Southern readers. "The Eleventh Hour," by Virginia W. Cloud; "Elena's Daughter (concluded)," and "The Garden of Honor," by Geo. Kean Stiles, constitute the fiction of this interesting number.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Prevention of Hay Fever.—Many Hay Fever cases have enlarged turbinals, spurs or ridges on the septum, polyps, etc. In the treatment of the Hay Fever, the first step should be to "put the nose in good order." Surgical means should be employed to render nasal respiration possible. At this stage of the treatment and in the numerous hay fever sufferers whose nasal passages are patulous except during the hay fever season, preventive treatment will generally avert the disease and keep the patient in a condition of comfort. The nasal passages should be sterilized by means of hydrozone in 10 per cent. solution in water, gradually increasing the strength to a 25 per cent. solution. This may be applied by means of the atomizer or douche and should be used 4 to 6 times daily, beginning about two weeks before the onset of the disease is expected.

If the attack is not entirely averted, in addition to the hydrozone solution use :

R	Antipyrine	grs. 10
	Menthol... ..	grs. 3.
	Alphosol.....	1½.
	4 per cent. solution of Eucaine B...	5 2.

Spray the nose and post-nasal space thoroughly after using the hydrozone.

Thoroughness of application counts for much in the treatment of all nasal affections, and particularly is this the case in hay fever.

The Proper Time for Operating on Adenoids.—Max Hagedorn, *Zeitschr. für Praktische Aerzte*, Jan. 15, 1899.—This is an able paper in which the author describes some of the symptoms which follow adenoid hypertrophy and explains their mechanism. Particularly the nasal obstruction which is so often present when it cannot possibly be purely mechanical. In this case the choanæ may be obstructed at the upper part, but an opening exists below. This passage, however, is not free, for oftentimes septal spurs and ridges exist, which, together with the swollen lower turbinals, and particularly their posterior portions, tend to narrow it down. Furthermore, this is just the region where the tenacious mucus is most apt to accumulate and offer further obstruction to the passage of air.

In regard to the time for operating, Hagedorn says it is as follows :

1. If nasal respiration is obstructed.
2. If frequent attacks of angina appear.
3. If the hearing is disturbed.
4. If there are present nervous symptoms such as cough, enuresis nocturnal, headache or aprosexia.

The author has had to operate twice in nursing infants where the obstruction was so great that life itself was threatened, because the children were utterly unable to nurse and breathe at the same time. VIRTUM.

Adenoidian Asthma.—Lepoutre—*These de Lile*, 1898.—Adenoid vegetations produce asthma as a reflex disturbance, the origin of the reflex being the nasal obstruction which causes insufficiency of hematosiis, compels the patient to make more forced and frequent respiratory efforts and precipitates a nervous paroxysm. The prognosis is good.—*Laryngoscope*.

Ear Diseases Coexistent With Adenoids of the Naso-Pharynx—An Analysis of 110 Cases.—Wm. Braislin, Brooklyn—*Phila. Med. Jour.*, February 20, 1899.—In an analytical paper the author calls attention to the intimate anatomical relationship between the pharynx and ear. He emphasizes the well established view of modern aurists upon the importance of removing the exciting factors when same exist. Ear disease in some degree will always be found accompanying the adenoid growth. Treatment of the aural condition should always be continued for some time after the removal of the growth.

Epithelioma of the Nose Treated With Caustic.—I. N. Bloom—*Int. Jour. Surg.*, Vol. xii, No. 1, January, 1899. Four weeks after the appearance of a pimple on the nose of a lady, aged fifty-three, there was a typical development of epithelioma, involving the base of the nostril, the inside of the ala, and the cartilaginous septum of the left side. There was no history or evidence of tuberculosis, and syphilis was excluded by specific treatment. The growth was curetted completely, and caustic potash applied freely and thoroughly. Patient made a good recovery. Three or four weeks after operation there was a minute spot, which was cauterized; patient is now in good condition. Diagnosis was confirmed by the microscope.—*Laryngoscope*.

Headaches, with Especial Reference to Nasal and Ocular Headaches.—A. D. McConachie, Baltimore—*Mary. Med. Journ.*, March 4, 1899.—There is no symptom of disease or functional disease which is so general as this affection.

All causes must be looked into. Each organ must be examined, and general causes eliminated, before local disease can be blamed.

Headaches of nasal origin usually begin intermittently; an acute coryza exaggerates the symptom. In a dry atmosphere the attacks are not frequent. The pain may be referred to the brow, temples, eyes or scalp. The general health of the patient suffers; inability to sleep is often present, mental vigor and memory become impaired and melancholia may follow.

Catarrh of the neighboring parts may complicate the nasal disease. Mouth-breathing causes a coated tongue, and this suggests dyspepsia to the careless observer.

Inspection of the nasal cavity assists the examiner in arriving at a proper diagnosis. Cocain is a valuable adjuvant in clearing up the cause of the headache in nasal disease.

If any disease of the nose of accessory cavities is found, same must be treated without delay. The eye not infrequently is the exciting factor in chronic forms of headache, and should not be overlooked in trying to find the cause in such conditions.—*Laryngoscope*.

A New Method of Local Anesthesia in Operations on the Tympanic Membrane.—Borrain—*Laryngoscope*.—The author has obtained good results from the following formula:

R Phenol 10 grs., menthol 5 grs., chlorhydrate of cocaine grs. 5.

Or equal parts of each may be employed. After cleansing and sterilizing the auditory canal, the anesthetizing agent is applied by means of a pledget of absorbent cotton. In the cases in which it was used there was at first a light burning sensation which was followed by complete local anesthesia in three minutes.

Medical News and Items.

Dr. Thomas S. K. Morton has been elected professor of the principles and practice of surgery in the Woman's Medical College of Pennsylvania, in succession to Dr. John B. Roberts, resigned.

The Ideal Symbol of Faith, observes an exchange, is not the traditional maiden clinging to the Rock of Ages, but the bald-headed man confidently consulting the bald-headed specialist, and looking forward with enthusiasm to a great growth.

Anti-Spitting Ordinances.—Sometime ago Asheville passed an ordinance forbidding spitting on the streets, except into spittoons placed at convenient points. Last February Charlotte "wheeled into line" and enacted a law making it a misdemeanor punishable with a \$5 fine to spit on the sidewalks, but did not prohibit the use of the gutters for that purpose.

America Wins Again.—The Austrian Government has decided in favor of The Hammond Typewriter for making out its official reports and has placed an initial order for 50 machines. The increased sale of the Hammond compels the manufacturers to double their capacity, which they are doing by building a new factory on 69th street New York.

The International Conference for the Prophylaxis of Syphilis and Venereal Diseases will meet in Brussels Sept. 4th. The United States will be represented by Prof. Isadore Dyer, M. D., of New Orleans, editor *New Orleans Med. and Surg. Journal*.

Practical Mind Healing.—A Christian Scientist, whose time was fully occupied in thinking about the unreality of diseases at \$2 per think, once treated a highly unappreciative man for a chronic nervous affection of a very painful character. After this man had depleted his purse by spending \$40 thus without any improvement, he desired to know when he should begin to get better. Then the Christian Scientist waxed wroth and said: O you of little faith! Know that you would already have been cured if you had believed me when I told you that your pain was not real. Pain and suffering do not exist; they are merely phantasms of the brain. There is no such thing as matter," continued he with such emphasis that he rattled some silver dollars in his pocket, "none whatever; the only real thing is thought. All this is too subtle for your commonplace mind, and hence I can do nothing for you; you had better go and fill your coarse, unappreciative system with drugs."

Then a vision of \$40 that had vanished, and of pain that had vanished not, came before the mind of that long suffering man, and he arose and took that Christian Scientist and he mopped the floor with him, smiting him sore upon the head and back so that, when he was through, congestion, abrasions, contusions, incipient ecchymoses and epistaxis were among the phenomena presented by his Christian countenance.

"There is no real suffering," said the unappreciative man, with scorn. "The bruises of your alleged head are entirely hypothetical; the choking I gave you was simply an idea of mine, and a devilish good idea, too; the pain which you feel is merely an intellectual phantasy, and your nose-bleed is only one of the ideal conceptions of the cerebral mass. Believe these things not to exist and they vanish. Good-day, sir." And the patient departed.—*The Medical Visitor*.

Review of Medical and Surgical Progress.

The Diagnosis of Diphtheria.—By F. Foord Caiger, M. D., M. R. C. P., Medical Superintendent of the South Western Fever Hospital.—*Lancet*, June 17, '99.

It is now customary to regard the presence or absence of the Klebs-Löffler bacillus as sufficient to determine the diagnosis. Although in the large majority of cases this relation holds good, more extended observation has shown that the test is not by any means so reliable as was originally believed, for two reasons. In the first place, a typical and even severe or fatal attack of diphtheria with distinctive clinical appearances may occur in which careful and repeated examination of the throat and secretions may fail to reveal a single diphtheria bacillus. Moreover, characteristic and even virulent bacilli may not infrequently be found in the throat secretions of healthy persons, especially if they have been in contact with cases of diphtheria. In a consecutive series of 140 cases of scarlatina in which the throat secretion was bacteriologically examined, diphtheria bacilli were detected by Dr. Sims Woodhead in 36 per cent, although very few presented features which suggested diphtheria. Ranke, of Munich, found diphtheria bacilli in 53 per cent. of his scarlet fever cases. The more or less persistent rhinorrhœa so often seen during convalescence from scarlet fever in young children is in perhaps the majority of cases found to be teeming with bacilli morphologically difficult to distinguish from those of true diphtheria. In some, as was shown by Dr. Todd, of the London Fever Hospital, the discharge contained genuine Klebs-Löffler bacilli, as evidenced by their virulence when injected into susceptible animals. It is a curious fact that the bacilli in these cases are almost invariably limited to the nasal discharge and do not invade the faucial or laryngeal mucous surfaces, and though their presence is unattended by any visible exudation or clinical evidence of diphtheria the possibility of their becoming a source of infection under favorable conditions cannot be ignored. Although a negative bacteriological examination cannot unfortunately be regarded as quite conclusive, in the hands of an expert observer a strong presumption is made out in favor of the case not being one of diphtheria.

The second, and even stronger, argument against the infallibility of the bacteriological tests is the wide difference of opinion amongst bacteriologists as to what is and what is not a diphtheria bacillus. A bacillus which is regarded by one observer as a true bacillus which has undergone a temporary attenuation is held by another equally experienced observer as a pseudo-bacillus, or one which is of an entirely distinct species and incapable under any circumstances of acquiring virulent pathogenic properties. To the first observer the case is one of diphtheria, potentially at any rate; to the other it is not a case of diphtheria, at all. Until the limits of normal variation both in respect to form and virulence can be agreed upon no practical differentiation is possible, and as long as an appeal to the results of injection into the lower animals is necessary for a decision the test must remain of limited value in practice.

Having briefly alluded to the disabilities of the bacteriological test alone in the diagnosis of diphtheria, the writer summarizes its utility in actual practice as follows: A negative result after careful examination of material taken from the throat and of the culture derived from it on at least two occasions, may be held to practically exclude diphtheria. A positive result after

examination of a throat presenting a definite pellicular exudation, or from the larynx without visible exudation on the fauces, may be regarded as sufficient evidence of diphtheria. The presence of short bacilli (suggesting diphtheria bacilli) in the nasal discharge alone, even though attended with isolated spots of exudation on the tonsils is not distinctive proof of diphtheria unless confirmed by inoculation into animals.

In the differential diagnosis of faucial diphtheria it is mainly in connection with follicular tonsillitis and the exudation throats present in some cases of scarlet fever, that difficulty is most often experienced. From follicular tonsillitis the differentiation may be most difficult and it may be impossible apart from the bacteriological test. The distinction is rendered none the less difficult owing to the fact that in some cases of diphtheria the exudation commences at the very points which are most characteristic of follicular tonsillitis—viz., at the mouths of the follicular crypts in the form of spots or little patches which at a later stage enlarge and ultimately become confluent so as form a continuous pellicle, covering the tonsil, but at an early stage the appearance of both is very similar. The clinical features on which some reliance can be placed are that in follicular tonsillitis the spots rarely coalesce and the exudation never spreads to adjacent parts but remains limited to the tonsils. Both tonsils are usually affected very much to the same degree and the same thing holds good for the swelling of the subjacent glands, while in diphtheria it is perhaps more common for one side to be involved more than the other and for the gland swelling to be proportionately greater. In follicular tonsillitis albuminuria is far less common, but the temperature is usually higher—in fact, the general statement is justified that the constitutional disturbance in follicular tonsillitis is likely to be more pronounced than in diphtheria of sufficient mildness to be mistaken for it. In a child the attack is more likely, *prima facie*, to be one of diphtheria than of tonsillitis, simply because in childhood the latter disease is relatively uncommon. Laryngeal implication never supervenes nor does any subsequent paralytic affection, whether of the palate, accommodation, or of the skeletal muscle—so distinctive of diphtheria.

In scarlatina attended with an exudation simulating diphtheria the attacks are almost invariably severe and the characteristic symptoms of scarlatina are usually so pronounced that its presence can hardly be overlooked. The difficulty usually is to decide whether the exudation is purely scarlatinal or whether scarlatina is complicated with co-existent diphtheria. The scarlatinal exudation is limited to the tonsils practically always; it is of a cheesy, friable consistence and easily removed with a camel-hair brush, it tends to disappear spontaneously in a day or two. In diphtheria, on the other hand, the exudation is usually thicker, tough, gelatinous, or fibrous looking, incapable of removal without lacerating the subjacent tissue, and it separates *en masse* after an interval of several days. In a case of uncomplicated diphtheria, of course, the exudate may be thin, friable, and easily detached, but in these concurrent attacks the condition is usually grave and the exudation as a rule presents the characters mentioned. The constitutional depression, too, is severe, and the case is very liable to terminate fatally with cardiac failure or to present some form of paralysis during early convalescence.

In laryngeal diphtheria or membranous croup the differential diagnosis from simple laryngeal catarrh may be very difficult during the early stage, particularly when the larynx is the primary seat of the disease. It is very fallacious to place reliance on a history of exposure to cold or on the apparent absence of

any source of infection. The only reliable test is bacteriological examination of the laryngeal mucus which can be easily obtained by passing a swab mounted on a bent wire into the upper part of the larynx. But this means the loss of valuable time unless the diagnosis can be made by immediate microscopical examination. In cases, however, in which the fauces are involved primarily or coincidentally with the larynx—which is common—there is not much room for doubt. The appearance of the very smallest patch of exudation on the tonsil in a case of croup is practically sufficient to establish it as one of laryngeal diphtheria.—*Med. and Surg. Review of Reviews, London, Eng.*

Water in the Treatment of Disease.—By W. Howship Dickinson, M. D., F. R. C. P.—*Lancet*, June 17, '99.

When urea and allied poisons accumulate in the body in renal disease water is the surest of eliminants. It cannot leave the body as urine without taking with it more or less of these accumulations. The urea excreted in renal disease is increased in proportion to the amount of diuresis. In some forms of chronic disease of the kidney, particularly of the granular kind, the urine is poor in quality, but excessive in amount; the patient is habitually athirst and drinks abundantly. This is his salvation. If he is so ill-advised as to greatly reduce his drink, the urine, too, will diminish and uræmia may declare itself. *Mutatis mutandis*, similar rules apply to diabetes. Water washes out the sugar and special toxic material, be it acetone or only something resembling acetone, which the diabetic process engenders; and helps to keep the system clear of the poison. Conversely the stinting of water adds to the danger of the disease. Large drinking of water may stave off for a time diabetic coma, and the same deadly condition may be suspended by the copious introduction of an aqueous solution into the veins. Consciousness may be completely though temporarily restored. Dr. Dickinson once had the almost incredible amount of 456 ounces thus injected in two operations with the space of 32 hours (*Transact. Clinical Soc.*, vol. xxiii, p. 130). The patient was comatose; she could be roused for a moment, but not so as to answer intelligently, at once relapsing into insensibility. After the injection of 106 ounces she recovered complete consciousness, but only retained it for twenty-five minutes. After the subsequent injection of 350 ounces she recovered consciousness, though not immediately, and retained it for about eight hours. It was observed that the urine passed after the operation no longer gave the acetone reaction, which before was strongly declared.

Gout is another disorder in which it is probable that the essential poison, be it what it may, finds an exit with the urine, and it is consistent, both with reasoning and experience, that this outgoing should be facilitated by water-drinking and diuresis.

There are many conditions of disease in which the body becomes water-logged. If there is too much water in the tissues or serous cavities, and all this comes, directly or indirectly, from what is swallowed, a very obvious suggestion is the cutting off of the supply. Some cavities in some conditions, notably the peritoneum in hepatic ascites, hold their contents so tenaciously, that it is seldom that any impression can be made upon them by dry diet. A remarkable exception was afforded by the case of a boy, aged 7. He had hypertrophic cirrhosis, presumably alcoholic, and ascites nearly to bursting. He was tapped ten times in fifty-five days, with the total removal of 47 pints. The hopelessness and the inevitable end of this continued tapping suggested treatment by dehydration. The drink was

limited at its minimum to six ounces of water, a few small pieces of ice, and one and a half ounces of brandy in the twenty-four hours. This was completely successful. The cure of the dropsy was immediate, complete, and final. At his death two years afterward from an abscess of the brain, the peritoneal cavity was found obliterated by adhesions. The liver was markedly cirrhotic. Dr. Dickinson has tried the same plan in other cases of hepatic ascites, chiefly in adults, with but limited success. Renal dropsy may be more amenable than hepatic, but cannot be subjected, without risk, to a method of treatment which invites uræmia. Cardiac dropsy may be thus treated without danger, and often with much advantage, whether the accumulations be in the cellular tissues or in the serous cavities. In one instance a large diminution in the bulk of a great ovarian cyst occurred as the result of a course of dietetic dehydration. Limitation of drink in some forms of dropsy is remarkably well borne; the patient probably utilizes his own accumulations, and feeds upon himself. The writer has reduced the daily drink to minima, varying from sixteen to two ounces in the twenty-four hours. Patient complained but little of thirst, and the tongue usually remained moist. When it became dry, which was seldom, the regimen was always discontinued or relaxed. One of the results was loss of flesh, no doubt due to the failure of saliva and of appetite, and inability to take the habitual amount of food.—*Med. and Surg. Review of Reviews, London, Eng.*

The Possibility of Extirpating Malaria From Certain Localities by a New Method.—Major Ronald Ross (*British Medical Journal*, July 1, 1899), in his inaugural lecture at the Liverpool School of Tropical Medicine, said there seemed to him a possibility of being able to check, perhaps even to extirpate malaria in some localities by the extermination of those species of mosquito which carry the disease in that locality. We can never, said Dr. Ross, hope to exterminate them by catching and killing them individually. But fortunately there is a very vulnerable stage in their career, before they reach their winged condition—that is, when they are water insects, the little wriggling larvæ found in pots and tubs of water, and in stagnant puddles. These larvæ take about a week to mature in the water. When mature they rise to the surface and become the adult winged insect, and fly away. The females feed on men, cattle, or birds, and can live for weeks or even months, laying eggs a few days after each meal. Now it is hopeless to attempt their destruction when they are winged, but our knowledge of their life-history leads us to suppose that if we could make arrangements to empty out once a week all the tubs of water, the ditches, puddles, and wells within a given area, we should be able to exterminate the larvæ within that area, at least for a time—and therefore also we should be able to exterminate, at least to a great extent, the adult mosquitoes.

Fortunately, in order to extirpate malaria, it will not be necessary to declare war against all mosquitoes in general. We already know for a fact that only certain species can carry the disease. If it prove to be the case, as I think it may prove, that these particular species can breed only in a few isolated collections of water, then we may expect to find ourselves in possession of a cheap and effective means of extirpating malaria, at least from the more civilized and therefore the more important areas.

In concluding his address the speaker made the following statements, which he said had a particular bearing on the question: (a) We can detect the dangerous species of mosquitoes in a given locality by a perfectly certain method, namely, by ascertaining according to Manson's induction whether the parasites of malaria will live in them or not. (b) We can detect their

breeding grounds by searching for their larvæ. If the dangerous mosquitoes prove to be confined to the genus *Anopheles*, the problem will be much simplified, and it will be advisable to declare war against the whole genus. The larvæ of this genus can be distinguished by any intelligent European by the fact that they float flat on the surface of the water, and the adults can be generally distinguished by their having spotted wings. (c) In order to obliterate pools which breed dangerous mosquitoes, they must be filled up or drained away. Mosquitoes scarcely ever breed in large bodies of water, because these contain fish. To kill larvæ in wells some appropriate drug must be sought for, but he thinks it unlikely that malaria-breeding insects often inhabit wells.—*Med. Age*.

Summer Diarrhea in Infants.—Abroad, of late years a good deal has been said of the value of tannigen in controlling the stools. Dr. Blackader, of Montreal, in the March number of *Progressive Medicine*, in an excellent review of the recent literature on summer diarrheas, quotes no less an authority than Escherich, the well-known Professor of Children's Diseases, at the University of Graz in Austria, who speaks very favorably of tannigen and claims for it a distinct disinfectant and bactericidal effect. Kraus and Biedert have also written in its praise, especially for chronic intestinal catarrh. It is a tasteless powder, therefore easily administered and is given in doses of 2 to 5 grains four times a day. It is especially useful in cases of follicular enteritis, where local measures are of little avail. Its administration is continued in lessened doses after the acute symptoms have subsided and it is said to hasten convalescence, which is often apt to be tedious.—*Medical News*, July 15, '99.

Notes on Cocaine.—According to observations made by Jenney (*Med. Record*, March 25th, 1899):

I. *Cocaine is not a Simple Alkaloid*, but a mixture of at least two alkaloids, one of which is rapidly absorbed by the skin and is non-poisonous and possesses valuable properties in the reduction of local inflammation and pain; the other, to which is probably due the toxic action, is not absorbed by the skin. The human skin, when wet with a solution of cocaine hydrochlorate, apparently dialyzes the mixed alkaloids, permitting the harmless one to be absorbed.

The residuum (on the skin) was found to be a white substance, intensely bitter and producing an almost instantaneous sense of numbness when applied to the tongue. The author suggests that the variable action of cocaine, its oft noted erratic poisonous action, may be due to the composition of the different samples of the drugs; some containing a large proportion of the highly toxic alkaloids.

II. *The Action of Cocaine Hydrochlorate on the Skin.* Where an aqueous solution of cocaine hydrochlorate is placed in contact with the skin a portion of the drug is absorbed, and if the surface contact be sufficiently large and the time sufficient, symptoms appear similar to those experienced when chewing the leaves of the coca plant.

Although the quantity of cocaine so applied may be many times the maximum internal dose, no toxic action takes place. The local anesthetic effects peculiar to cocaine are somewhat modified. If applied to the skin over bruises the action is strongly marked, the discoloration and congestion of the tissues are rapidly reduced to the normal; the pain and inflammation subside more gradually, but the pain seldom returns, except in deep-seated injuries, after the effect of the anesthetic has passed. A solution of 10 or 20 grains

to the oz. of water is a suitable strength and the parts must be kept moist with it as absorption ceases where the skin becomes dry.

Care must be exercised that no abrasions are present as the toxic principle will be absorbed at points where skin is broken.

Cocaine solution may be employed in the treatment of bruises, sprains, and many local inflammations. As a "pain paint" in the quick reduction of bruises it has no equal.

[I have observed marked results follow the application of 10 drops of rather warm cocaine solution in the ear during the early stage of ear ache. The tympanic membrane should be intact in the child or the treatment would not be safe.—W. H. W.]

A Safe and Simple Method of Removing the Placenta.—Herman Gasser, M. D., in the *Medical Record* says: During my first two or three years of practice, it was my habit to use Credé's method of expression of the placenta, with general satisfaction to me, but in nearly all cases there was complaint of pain by the patient as a result of the manipulation.

In one rather protracted case of this kind I ordered the patient to press it out while also using Credé's method. It came at once with readiness and ease. It seemed to linger in my mind that at some time or somewhere I had been taught or had read that this might cause inversion, and hence watched with care the contraction of the uterus. Since then in four hundred and eighty confinements it has been my constant practice. At first, it is true, I felt my way gradually, but with ever-increasing confidence, so that at the present time I feel that I can complete the third stage of labor, whenever I want to, and that, too, without complaint by the patient and with a minimum amount of pain.

After the second stage of labor is complete, it is usually my practice to keep track of things for about ten or fifteen minutes, which also in the meantime gives the patient a rest. I then catch hold of the cord with my right hand, gently grasping the fundus through the abdomen with the left, when I direct the patient to press it out, which she generally does at once. When by gentle traction on the cord and slight compression on the fundus I find it coming, I order the patient to relax her efforts.

Since using this simple and sensible method I have not had any "adherent placenta" that we hear and read so much about. That they exist, though rarely, no doubt is true. Gentleness and patience should be practised to secure the membranes intact, for much of the future comfort and progress of the patient is dependent upon this seemingly simple procedure.

The "Bemiss Rules" for the Diagnosis of Yellow Fever.—Owing to the fact that yellow fever has found access to the Atlantic seaboard not far from our border, we believe the following rules will be of interest, and reproduce them :

The Louisiana State Board of Health has lately issued a circular embodying the rules arranged by the late Professor Samuel Bemiss. The circular is substantially as follows :

The following groups of symptoms shall be considered to indicate yellow fever :

Group 1.—A person after a sudden attack has a fever of one paroxysm, attended with marked congestion or blood stasis of the capillaries of the surface, conjunctiva and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever.

Group 2.—A person after a sudden attack has a fever of one paroxysm,

followed by an unusual prostration, albuminous urine, yellowness of the conjunctiva or skin, and having no positively authenticated history of previous attack of yellow fever.

Group 3.—A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, and a general hemorrhagic tendency under circumstances where exposure to infection is a possibility.

Suspicious Cases of Yellow Fever.—The following symptoms associated with fever of one paroxysm in a patient who has been apparently exposed to infection, and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease—viz.: 1. Suddenness of attack, either with violent pain in the head and back, injected eyes and face, or marked congestion of the superficial capillaries. 2. Want of that correlation between pulse and temperature usual to other forms of fever. 3. Albuminous urine. 4. Black vomit. 5. General hemorrhagic tendency. 6. Yellowness of the skin

The following cases shall also be suspicious: 7. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever. 8. Any case respecting which efforts are made to conceal its existence, full history, and true nature.

In the event of death in a suspicious case a post-mortem examination should be made when practicable. Both before and after death yellow fever is especially and pre-eminently characterized by the fact that it is *par excellence* a hemorrhagic fever, marked by capillary congestion and its sequelæ; hence post-mortem evidence of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion.—*New York Medical Journal.*

Statistics of Death Under Chloroform, Ether and Nitrous Oxide Gas.—(*Med. Times and Hosp. Gaz.*; Ref. *Calcutta Med. Rec.*, XVI., No. 21, p. 658).—During the first quarter ending March 31st, 1899, 18 inquests were reported on cases of death under an anesthetic, namely: twelve males and six females—from January 5, February 10, March 3. Of these were from pure chloroform: eight males, aged 40, 22, 41, 37, 33, 63, 54 and 5 years; six females, aged 44, 2, 73, 11, 6, and a child, age not stated. From pure ether: two males, aged 52 and 50 years. (Ether is held seven times safer than chloroform.) From nitrous oxide: one male, aged 12 years. Not stated: one male, aged 55 years, administered by Dr. Edgar Willett, St. Bartholomew's. If the ratio of deaths is 1 in 4,000 under chloroform, 1 in 28,000 under ether, and 1 in 100,000 under nitrous oxide, it follows that in England alone 54,000 surgical operations were performed under chloroform, 56,000 under ether, and 100,000 under nitrous oxide, or 210,000 operations in three months. Specialists in anesthetics must have had a busy time.

The Immunity of Arabs From Typhoid Fever.—Some time since M. Vincent reported at a meeting of the Academy of Medicine held in Paris, that it was his observation that the Arabs were not one hundredth as susceptible to typhoid fever as French soldiers. In his opinion this immunity does not rest on a previous attack, nor in the individual is it gradually developed from the use of water contaminated with typhoid germs, but it is a natural immunity. The blood on examination shows no serum reaction and has the ability to resist the invasion of typhoid fever germs.

The great immunity enjoyed by the Arab is largely attributed to his general abstemious habits and to the simple vegetable diet to which he confines himself.—*Lancet.*

Appendicitis Maxims.—By M. O. Terry, M. D., Utica, N. Y., Ex-Surgeon-General State New York.—Remember that constipation and irregularity of the bowels are the factors to be considered, and that diarrhœa is simply an effort on the part of nature to relieve impaction, congestion and inflammation.

2. That cathartic medicine in some form should be administered at once, but that half an ounce of castor oil and same quantity of sweet oil is to be preferred, followed immediately by a glass of hot water, which dose is to be repeated in three hours unless a thorough evacuation has been induced.

3. That the condition of the bowels desired is a stool free from hard lumps and yellow in character.

4. That morphine or opiates in any form should *never* be given in any state of the difficulty, as it smothers symptoms and arrests the peristalsis of the bowels, a condition found in impaction, which at times nature tries to relieve by diarrhœa.

5. That for *pain* speedy relief is obtained by repeated hot flaxseed poultices covered with hot sweet oil or applied to the abdomen before the poultice. Also that enemas of half a pint of sweet oil followed by soap or soda water in large quantities are useful.

6. That in sharp attacks the high or colon enema should be given, and at times the patients should be placed in the Trendelenburg position.

7. That glycerine and water, in the proportion of 1 to 4, is to be used at times to dissolve the impaction.

8. That food in acute attacks should be omitted and only water allowed, and that freely. Later, oatmeal gruel, strained; milk, peptonized; mutton or chicken broth with strained rice gruel.

9. All of the above suggestions should be carried out as indicated, vigorously, systematically, and perseveringly.

10. The remedies used throughout, as indicated, are: Aconite, veratrum vir., belladonna, bryonia, phenacetine, calomel and soda tablets, pulsatilla, and arsenicum. Tinctures are given in doses graded to the inflammation and idiosyncrasy of the patient in hand.

11. The calomel is given for two purposes in conjunction with the soda: (a) For its cathartic effect when the castor oil cannot be taken. It will be necessary in these cases to give from two and a half grains with three times the amount of soda, followed by a glass of hot water, to five and occasionally ten grains.

12. (b) For chronic recurrent appendicitis with marked thickening, and plastic exudate into the surrounding tissues.

13. If you ask when to operate, I advise following the indicated line of rational surgery. If the quick pulse and pain does not subside speedily, or show improvement within a few hours, it will be good surgery to operate—if the patient will allow you to do so. If they do not, continue the "oil treatment" *vigorously*.

14. The easily diagnosed pus case requires speedy surgical attention.

15. That half an ounce of sweet oil, followed by a glass of hot water, taken half an hour before meals, should be continued until pain or soreness ceases, which may be three months. As improvement ensues take two doses a day, and finally one.—*The Medical Times*.

To Abort a Cold—Max Nassuer asserts that an incipient cold in the head can be checked every time if the nose is thoroughly rinsed out with a weak solution of potassium permanganate, which seems to have a specific action upon the germs causing the trouble. He claims that the public will

have a higher respect for the profession when it is proved that colds can be successfully aborted by following the physician's directions. He checks colds in the first hour or so, and thus escapes all the catarrhal and bronchial annoyance that follows in their train. He has a strong solution of potassium permanganate on hand—about what can be taken up on the tip of a small knife, to half a liter water. A few drops of this strong solution are added to warm water until it is colored a pale pink. After blowing the nose vigorously, both nostrils are rinsed out well with this weak solution, allowing the fluid to run out through the other nostril and through the mouth. Each nostril is then wiped out with cotton on the finger to mechanically remove all remaining germs. A small dry plug of cotton is then pushed well up into each nostril and the nostrils filled with the weak solution, with the head held back, allowing the cotton to soak it up. The cotton is left undisturbed for about an hour, for the warmth and moisture to produce their effects, when the plugs are expelled by blowing the nose. Even an established cold is favorably influenced by this treatment, but it is most effective when the sneezing, tickling and increased secretions announce the advent of the cold, which he considers a highly contagious infection.—*Klin. Therap. Woch., Journal Am. Med. Ass'n.*

A Point About Incisions and Scars in the Hairy Scalp.—Dr. George H. Monks (*Boston Med. and Surg. Jour.*) calls attention to the fact that scars in the scalp often seen unduly broad, much more so than the nature of the injury and the prompt healing of the wound would lead one to expect. His attention was called to this fact especially by a case in which he desired to remove a broad cicatrix across the back of a boy's head. The cicatricial tissue was dissected out, the edges of the wound carefully coaptated, and a dressing of cotton and collodion applied with the satisfactory result that he had primary union and only a linear scar. However, in the course of a few months, the scar was as broad as before the operation. In searching for a cause for this, he examined the scar carefully with a magnifying glass, and found that all of the white band was not cicatricial tissue, but that there was the linear scar at the top of the band and that below this was a *bald* space. This he attributed to the fact that the hairs upon the back of the head growing in an oblique direction, the roots have the same direction; and by making the usual incision at right angles to the surface of the scalp, a number of roots were cut off. The hair from these roots came to the surface below the line of incision, and soon came out on brushing the head, leaving a space bald. He advises using care in making scalp incisions, and suggests that they be made in the same plane as the hair roots, thus avoiding the bald space below the cicatrix.

Plastic Surgery of the Nose.—The vitality of the tegumentary and cartilaginous tissues is well illustrated by a case reported by Dr. Abbott-Anderson in the *Lancet*, of March 11, supplemented by an additional report and illustration in the issue of April 29. A man aged 30 was engaged in sharpening a knife, when it slipped and in some way managed to slice off a piece of the nose, $1\frac{1}{4}$ inches in length, from above downward. The victim went first to the druggist who in turn sent him to Dr. Anderson. There he waited fifteen minutes before seeing the doctor who, on recognizing the state of affairs asked for the severed piece. This not being at hand a boy was sent for it and returned with it in ten minutes. It had been found on the kitchen table by the second cook who took it for a piece of calf head or pig's ear. During the boy's absence, the raw surface was carefully bathed

with an antiseptic solution and, on his return with the missing piece, it was thoroughly washed in a warm saturated solution of boric acid and then fixed in place with twelve silk sutures. For four hours thereafter a fresh hot compress of boric lint, wrung out in boric solution, was applied every five minutes, and to this the operator attributes his success. Lastly, it was carefully dusted with eucrophen and done up in: 1, a piece of green protective; 2, wet boric lint wrung out in boric solution; 3, dry boric lint; 4, double cyanid wool; 5, gonorrhea bag to act as muff, and 6, bandage. The wound healed by first intention all round. The sutures were removed the fourth day, and the picture published in the *Lancet* of April 29 shows no deformity whatever. The case is interesting as showing that a piece of severed tissue left neglected and thoroughly blanched could at once resume its vitality and function after thirty-five minutes' separation. Such cases of successful minor surgery of this nature are well worth reporting.—*Journal Am. Med. Asso.*

[A few months ago Dr. H. S. Lott, of Salem, N. C., reported in the N. C. MEDICAL JOURNAL a case of a colored man whose forefinger was severed between the first and second joints. The colored man left the doctor's office with the severed finger tip in his pocket, promising to come back "in a few minutes," but the doctor did not see him for two years, when to his surprise he found his "patient" with four good fingers on each hand. The finger had been placed in position on the stump, bloody and dirty, and held there by means of a cloth bandage, resulting in perfect union.

A physician in eastern Carolina—name forgotten—reported in our hearing a case of a completely severed ear which was stitched in position and union resulted.—EDS.]

Solid Food in Typhoid Fever.—W. Buschejew (*St. Petersburg Med. Woch.*, Nov. 26th, 1898) reports better results with a series of eighty soldiers with abdominal typhus, fed with bread, a chop, boiled meat, eggs, milk, tea, wine (one or two ounces), than with a series of seventy-four fed with liquid food. Since the introduction of solid food two years ago there has been but one death from perforation and two from generalized peritonitis out of 509 patients. There were no local complications from the solid food; the general health was less depressed and recovery more rapid.

An American Writer has been urging upon the municipal authorities of Philadelphia the importance of sand filtration of public water supplies. A rough calculation shows that typhoid fever alone, in 1896, caused upwards of 5,000 deaths in thirty-five American and Canadian cities, exclusive of the deaths from the same cause in suburban towns and villages. That the death-rate from typhoid fever can be very materially decreased by sand filtration of water supplies, is easily demonstrated by reference to the statistical returns of the large European and American cities that have introduced the system. For instance, in Berlin the mortality from typhoid fever has, by a filtration system, been reduced to 4 in every 100,000 of the population. In Amsterdam, in 1890, the death-rate was 19 in 100,000, and in 1896, after the introduction of the filtration system, it was reduced to 3 in 100,000. In Hamburg, the proportion was 28 in 100,000 in 1890, but an epidemic of cholera compelled the institution of radical measures for the purification of the polluted Elbe water; and in consequence the typhoid rate has fallen to 6 in 100,000.—*Med. and Surg. Review of Reviews*, London, Eng.

Appendicitis Does Not Always Need the Knife.—"I protest against the use of opium, except in rare cases, as it has a tendency to mask the symptoms of the disease and leads the patient to the grave. I protest against the argument of Dr. Niles, that every case ought to be operated upon, and the appendix is never to be left. Out of 300 post mortems on as many bodies it was found that 100 of the individuals had had appendicitis at some time in their lives, and had all recovered from the disease. I dispute the assertion that through surgical operations all but two per cent. of the cases can be saved. I challenge any operator in the room to take 100 well persons and operate upon them without killing more than two per cent. We all fail, gentlemen. I do not know why, but we all fail. I do not believe in operating on all cases of appendicitis. I'd rather have a live man with an appendix than a dead man without one. (Applause.) I do not believe with the witty Frenchman that no case is complete without an autopsy. (Laughter.) If the patient is no worse after forty-eight hours of observation, let him alone; let him get well."—Dr. W. W. Keen, at the Denver meeting of the American Medical Association.

The Diagnosis of Scarlet Fever.—The main points to be borne in mind are :

1. Initial vomiting, very constant in children under ten, less so above that age, and rare in measles, German measles and diphtheria.
2. Undue frequency of pulse—say 140 to 150—out of proportion to the other symptoms.
3. The rash beginning on the upper part of the chest, over the clavicles and about the flexures of the neck, often well marked on the back of the waist.

To discriminate between scarlatina and German measles, Lindsay is in the habit of relying on the following points: In scarlatina there is initial vomiting; a brief but well marked prodromal stage, with vomiting, chills, headache and sore throat, sometimes going on to ulceration; no early enlargement of the post-cervical glands. In German measles there is no vomiting, no prodromal stage, the rash being often the first symptom and always appearing on the face; little or no constitutional symptoms; no ulceration of the throat; a very characteristic early enlargement of the post-cervical glands.—*Medical Age*.

Some More Don'ts.—The Don'ts extant at this time are numerous, but there is room for a few more of a different kind:

Don't fail to renew your subscription when the time has expired.

Don't fail to notify the publisher when you have changed your place of residence.

Don't fail to advise the office when you discontinue.

Don't leave this duty to the postmaster.

Don't forget or neglect to do the gentlemanly thing.

Don't throw the statement of your account in the waste basket and leave the publisher under the impression that the statement was not received.

Don't fail to make note of it when a bill is presented for payment.

Don't conclude that no personal honor is involved in unpaid dues on subscription.

Don't discriminate between debt due for your selected journal and one due you from your patient.

Don't forget that the golden rule is binding here as elsewhere.

And Don't forget that money is required to conduct a medical journal.—

The Medical Herald.

Therapeutic Hints.

To Disguise Cod-Liver Oil.—

R Olei morrhuae..... 150
Olei eucalypti ether..... 2

—DUQUESNEL.

Delirium Tremens.—Sulphate of atropine, one-sixtieth of a grain administered hypodermatically, in all cases produced a quieting and deep sleep.—DR. TONVIME.

Hysteria.—

R Camphor. Monobrom ,
Extr. valerian..... āā 3
M. ft. pil. No. xxx. Obduc. fol. argent. S. One pill three times a day.

—KRAFFT-EBING.

Powders for Ovarian Neuralgia.—Martin's formula is given as follows in the *Riforma Medica*, for March 25th:

R Extract of Belladonna..... 3 grains
Extract of stramonium.... 4½ “
Lactophenine..... 90 “
M. Divide into twenty powders. Two or three to be taken daily.

Acute Tonsillitis.—Dr. Geo. Fay, in the *Atlanta Med. and Surg. Jour.*, recommends the following:

R Tinct. Aconite..... ʒss
Chloroform-water ʒii
Distilled water ʒiv

A teaspoonful every five minutes for 12 doses; afterwards a dose every hour. If necessary repeat the mixture and direct the repetition to be taken as before, beginning with five-minute doses.

Neurasthenic Headaches.—Dr. Joseph Collins states that in neurasthenic headaches, associated with low vascular tension, caffein, either alone or in combination, gives excellent results. The following formula he has found particularly useful:

R Caffein citrate..... 5 grains
Sodium bromid..... 10 “
Sodium bicarbonate..... 10 “
Pulv. tartaric acid..... 10 “

M. Make into one powder.

Sig. Take in water while effervescing.

Or—

R Caffein salicylate 1 gr.
Ammonium salicylate } of each 5 “
Phenol salicylate }

M. Make one capsule.

Sig. One capsule every three to four hours.

Or—

R Caffein..... ½ to 1½ grains
Phenacetin..... 5 “

M. Make one capsule.

Sig. Take with hot water, and repeat in one hour.

—*Medical News.*

Enlarged Glands.—Where surgical interference is inadvisable, use the following ointment night and morning:

R Ichthyol ʒj.
Ungt. hydrargyri.
Ungt. belladonnæ aa ʒj
Unguent. petrolei ʒvj.

M.—*Keen, Ex.*

Whooping Cough.—J. Madison Taylor has found antipyrin of great value in the treatment of whooping-cough. The dose for a child is from $\frac{1}{2}$ to 1 grain every three hours. He employs it as in the following formulas:

R Antipyrin.....gr. ss. to j.
Ammon chlor.....gr. ijss. to v.
Syr. limonis..... $\bar{3}$ ss.
Aquæq. s. ad. 3.

Or,

R Antipyrin.....gr. ss. to ij.
Ammon. bromgr. j-ij.
Ammon. murgr. v.
Syrupq. s. ad. $\bar{3}$ j.

Formula for Quinin in solution.—The prescribed dose of the following mixture is added to a wineglass of water in which five grains of sodium bicarbonate have been dissolved, and is drunk during effervescence. The taste of the medicine thus given is not unpleasant, and it is well borne by the stomach:

Quinin sulphate.....1 dram.
Citric acid..... $2\frac{1}{2}$ drams.
Lemon sirup } of each15 grains.
Simple sirup }
Distilled water, to make.....5 fluidrams
Mix.—Ten drops to be given as directed.

—*Practitioner.*

Pruritus.—

R Mentholij
Cerat. Simp.....ij
Ol. amygdalæ dulc.....ij
Ac. carbolic.....ij
Pulv. zinc. oxid..... $\bar{3}$ ij

After cleansing the parts, apply night and morning.

—*Kelsey, Philadelphia Medical Journal.*

Hoarseness.—For hoarseness in singers and speakers, Botey commends the following:

R Cocain. hydrochlor.....gr. xv
Strich. sulph.....gr. $\frac{3}{4}$
Aq. dest..... $\bar{5}$ ij
Spray throat.

And—

R Cocain. hydrochlor.....gr. $\frac{3}{4}$
Tinct. aconitim x
White sugar and marshmallow.. q. s.

Ft. pastillas No. lxxx. Sig. To dissolve in the mouth.

—*Gillard's Medical Monthly.*

Erysipelas.—

R Tr. aconiti $\bar{3}$ ss.
Ext. gelsemii fl..... $\bar{3}$ ij.
Chloroformi $\bar{3}$ i.
Aq. ammoniæ..... $\bar{3}$ i.
Ext. belladon. fl..... $\bar{3}$ ss.
Tinct. saponis comp..... $\bar{3}$ ss.

M. S. Apply with a camel's-hair pencil three or four times daily to the inflamed surface.

—L. HILL, JR.

Syrup of Arsenate of Iron.

The *Riforma Medica* for May 12th credits the following to Griggi:

R Arsenate of sodium..... $4\frac{1}{10}$ grains,
Pure ferrus sulphate $5\frac{1}{2}$ "
Citric acid.....12 "
Distilled water.....150 "
Syrup.....14,850 "

M.: From two to six teaspoonfuls daily, before meals.—*N. Y. Medical Journal.*

Dyspepsia with Flatulence:

R	Tinct. gentianæ.....	} āā 4	(5i.)
	Tinct. valerianæ		
	Tinct. nucis vomicæ...		
	Chloroformi.....		
		I	(gtts. xx.-xl.)

M. Sig.: Ten to twenty drops in water before meals.—*Centralblatt für die gesammte Therapie.*

Nasal Catarrh.—

R	Sodii bicarb.....	3 ss.
	Sodii biborat.....	3 ss
	Glycerini	ij.
	Listerini	i.
	Aquæ	3 iij.

This is a modification of Dobell's solution, and, when slightly warmed and used as a spray, is excellent for cleansing and disinfecting the nasal cavities.
—J. ADDISON STUCKY.

Publishers' Department.

It is remarkable how quickly some products are accepted by the profession, while others prove failures, even after exhaustive efforts to bring them into prominence before the profession. Alphasol, that most excellent disinfectant to be used not only in the toilet, but in the surgeon's amphitheatre and the physician's office, has been accepted readily. No doubt intrinsic merit plays an important part in the success of any product, but many which have considerable value never reach the extensive use which they deserve. The Alphasol company, however, have met with immediate good results, largely no doubt through the energy of the company's president, Mr. G. S. Smith. Alphasol is certainly an ideal mouth wash and disinfectant, to be used as a spray, or for local application in diseases of the ear, nose, and naso-pharynx.

WM. GEDDES, M. D., 1720 14th St. Washington, D. C., says: Aletris Cordial has proven, in a case of dysmenorrhea of some years' standing, wonderfully efficacious, and has, apparently, given to the sufferer complete relief. This being the first case in which I have had occasion to try the Aletris Cordial, and sufficient time having elapsed for me to speak of the permanence of the cure I can say that I propose to continue the use of Aletris Cordial in all such cases, and wherever a uterine tonic is indicated.

SANMETTO IN PROSTATITIS, CYSTITIS, CHRONIC GONORRHEA, AND VESICAL IRRITATION.—I take pleasure in saying that Sanmetto in my hands has proven its superiority to other remedies in prostatitis, cystitis, chronic gonorrhea and general vesical irritation. I prescribe it with confidence every time, and in cases not attributable to mechanical causes, I feel sure of relief every time. In gleet its action is marvelous, the worst cases yielding readily, and I shall continue its use.

Anderson, Ind.

ORAN E. DRULEY, M. D.

THE INFLAMMATORY CONDITION IN PERITONITIS, ETC.—An ininteresting reference to an extensively prescribed remedy is found in that valuable text-book, "Materia Medica and Therapeutics," by Finley Ellingwood, A. M., M. D., Chicago. The substance of the article is to the effect that the influence as a pain-reliever of the popular analgesic—Antikamnia—is certainly next to morphine, and no untoward results have obtained from its use, even when given in repeated doses of ten grains (two five-grain tablets.) It is especially valuable during the progress of inflammation, and given in pleuritis or peritonitis it certainly abates the inflammatory condition, relieves the pain at once and the diffused soreness shortly, as satisfactorily as opium. It does not derange the stomach or lock up the secretions. It is also of value in pain of a non-inflammatory character, and is a convenient and satisfactory remedy in headaches without regard to cause, if the cerebral circulation be full.

BARIUM ROCK SPRING WATER.

(OLD POISON SPRING, 1775.)

In the treatment of disorders of the alimentary tract, in venereal and *skin diseases*, in rheumatism, in liver and kidney complaints, and in hysteria and female troubles, the peculiar effects of this water are most marked. It has been found a specific in eczema and catarrh, and even reports of *cancers* cured by its free use are not lacking. It contains in varying proportions Barium, Iron, Soda, Sulphur, Magnesia and Phosphoric Acid, in such combinations as to render it a curative and tonic agent, *the equal of any mineral water known*. Physicians living near the spring have prescribed the water for years.

THOS. E. ANDERSON, M. D., Statesville, N. C.—Its greatest triumphs have been in cutaneous diseases, acting as a *specific in both acute and chronic cases of eczema*. In many cases in rheumatism and gouty conditions of the system, it exerts an influence almost amounting to curative.

M. R. ADAMS, M. D., Statesville, N. C.—In the treatment of obstinate cases of eczema it is very efficacious. Every physician understands too well the baffling nature of some forms of *eczema*, and how difficult the treatment has been regarded by all medical writers. The Barium water maintains the reputation of being a most valuable remedy in the treatment of eczema and kindred *skin diseases*. This fact I know from my own *personal experience and observation*, and I cheerfully bear testimony to the fact that I have seen some of the most obstinate cases yield to the persistent use of the water, when used both internally and externally. As previously stated, the water can be prescribed with benefit in a number of diseases, but is specially indicated in *skin diseases* and as an *alterative and tonic*.

DOCTORS Who Vouch for Us.—Dr. Jno. R. Irwin, Charlotte; Drs. Hill, Statesville; Dr. J. S. Lafferty, China Grove; Dr. R. J. Brevard, Charlotte; Dr. Frank Robinson, Lowell; Dr. J. P. McCombs, Charlotte; Dr. J. L. Booth, Oxford; Dr. E. A. Alderman, Wilmington; Dr. H. J. Walker, Huntersville; and many others.

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Fort Scott, Ks.
June 19, 1899.

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"After third application of Vitogen, the wound began to heal immediately, and within

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Vitogen is the ideal Antiseptic, Disinfectant and Germicide for Burns, Scalds, Wounds, Ulcerations and all External Inflammation. Non-odoriferous: superior to Iodoform, less expensive, goes further. Dispensed in perforated screw-cap bottles by druggists, or will be mailed on receipt of price. 2 oz., 50c.; 4 oz., \$1. Canadian price, 2 oz., 60c.; 4 oz., \$1.20.

HARVEY'S ELIXIR
IRON-MANG. COMP.

Supplies "Tone" to the Blood: is absorbed without chemical change, is unusually agreeable to the digestive organs. Iron and Manganese as Peptonates do not injure teeth or upset the stomach. Price 90c. per pint. Sample Free.

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PUTREFACTIVE PROCESSES.

As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, LISTERINE possesses great advantage over other antiseptics in that it may be administered freely, being non-toxic, non-irritant and non-escharotic: furthermore, its genial compatibility with syrups, elixirs and other standard remedies of the Materia Medica, renders it an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life.

An interesting pamphlet relating to the treatment of diseases of this character may be had upon application to the manufacturers of LISTERINE.

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NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, SEPTEMBER 5, 1899.

No. 5

Original Communications.

Report of a Case of Urethral Calculus with Amputation of Penis.

By DR. H. F. LONG, Statesville, N. C.

IT is somewhat rare that one finds a patient with a urethral calculus which has formed in the urethral canal. Sometimes a calculus, which has formed in the bladder or kidney, after finding its way to the urethra, becomes impacted there and at once makes its presence known by marked obstruction to the flow of urine. It is rarer still that one finds a patient with a urethral calculus which he has carried for years and which is of very large size, with obliteration of the urethra for an inch of its length at the glans penis and yet without a grave systemic condition or symptom showing itself.

The patient was first seen on Sunday, May 21st, 1899, and the following history elicited:

When quite young, perhaps 10 years old, while descending a ladder, patient fell and injured the foreskin and glans penis. There was a high grade of inflammation of the parts, resulting in phimosis. To relieve the latter, a physician who was treating the case divided the foreskin back to corona. The complete operation of circumcision was not performed, and the cut edges of the foreskin adhered to the glans and in a short time complete union was accomplished. The pressure exerted by this attachment of the foreskin, and the injury to glans by the accident, almost closed the urethral canal, but for a time the patient was able to void his urine through the narrowed urethra. Within a few months the calibre was so small that the urine could only pass through drop by drop, and at last this became impossible. Then what the patient called a "bealing" appeared on the side of the glans. This broke and urine and pus were voided through the opening. The urine was voided through the opening thus made for some time.

Before a great while another "bealing" came, and this was followed by numerous other "bealings" until the glans was honeycombed by the fistulæ or pus (tracts) "bealings." This condition continued for years, gradually growing worse. The patient suffered many things of many doctors and took

unlimited quantities of balsam copabia and such-like drugs without benefit. Patient was now 47 years old, married, but without issue. Had not been able to work for quite a long time and was anxious that some relief be given even though he lost the offending member.

On examination the penis was found to be enormously swollen and cedematous, the skin dark colored, red and angry looking. The glans penis had numerous fistulæ scattered over its surface from which there was a constant discharge of pus and urine. Numerous small spots seemed gangrenous almost, and a very foetid odor was noticed. On examination a hard mass was felt in the urethra, which patient said had been there a long time, and which could be moved back and forth along the urethral canal.

The parts were prepared for operation and the patient was anæsthetized. Hemorrhage was controlled by surrounding the root of the organ with a narrow rubber cord. An incision was made through the glans and into the urethra. The glans penis was found to be full of pockets containing pus—in fact, was practically destroyed, and was traversed in all directions by fistulæ through which the urine dribbled constantly. The portion of the urethra containing the hard substance was split open and a calculus, $2\frac{5}{8}$ inches long, 2 inches in circumference at largest part, was found and removed. This calculus was round, but shaped like an Indian arrow head.



NATURAL SIZE OF STONE.

It weighed, one week after removal, 240 grains; though the surface was smooth, it was irregular in size, but hard and firm. The urethra had dilated to accommodate the calculus. The urethral canal had been totally destroyed for about one inch of its length, from just behind the glans outward, so that not even a trace of it was left. As said before, numerous small patches of this portion of the organ were almost gangrenous, and the urine and pus had so injured the tissues that an amputation was thought necessary.

A modified circular amputation was decided upon. The corpus spongiosum, containing the urethra, was left somewhat longer than the rest of

the stump, the urethra was slit up, the lower half stitched to the skin of the under surface of the penis and the upper half to the corpus cavernosa. The skin flaps were then sutured, an aseptic dressing was applied, after dusting the parts with boracic acid. The patient rested well that night, the operation having been performed late in the afternoon, and got up next morning and went to the urinal and emptied the bladder in the normal manner for the first time, he said, in twenty years. The wound has healed rapidly, and the patient is going about the streets as though nothing had ever happened to mar the usefulness of his organ.

My theory regarding the formation of the calculus is as follows: The urethral canal having been closed by the foreskin, which was not removed completely, the urine was thus filtered through the glans penis, leaving behind in the urethral canal the salts of uric and lithic acid, forming in this way the large calculus which had rendered this man's life miserable for twenty years.

Report of a Case of Prostatic Hypertrophy, Operation by I. R. Trimble, M. D., Bay View Hospital, Baltimore, Md.*

By ROBT. L. FELTS, M. D., Charlotte, N. C.

BEFORE reporting this case I will briefly summarize the anatomy and anatomical relations of the prostate gland:

The prostate gland is situated immediately in front of the neck of the bladder, behind and somewhat below the symphysis pubis, and rests upon the rectum, through which it may be distinctly felt, especially when enlarged. In the upright position of the body, with moderate inclination forward, the prostate is vertical, its base being directed upward and apex downward. It measures about one and a quarter inches from base to apex; greatest transverse diameter about one and three-quarter inches, and greatest thickness about three-quarters of an inch, and weighs from four to six drams. It is described as being about the size and shape of a horse-chestnut, composed of two lateral and usually, a middle lobe. It is perforated by the urethra, running from base to apex, and nearer its upper than lower surface.

HISTOLOGY.—It is enclosed in a thin, firm, fibrous capsule. It is composed of a glandular substance and muscular tissue, the latter constituting the proper stroma of the prostate, the connective tissue being very scant and simply forming thin trabeculae between the muscular fibres; the muscular tissue is arranged in two layers; the outer dense layer, just beneath the capsule, forms an investing sheath for the gland; the second layer is a dense circular layer surrounding the urethra, continuous behind with the internal layer of the muscular coat of the bladder and blending in front with the fibres surrounding the membranous portion of the urethra; between these two muscular layers strong bands of muscular tissue form meshes, in which is imbedded the glandular structure of the organ.

*Read before Charlotte Medical Society, August 1, 1899.

The function of the prostate gland is not positively known. It is without doubt a sexual organ, and is not related to the urinary tract except by its accidental position; this is shown conclusively by its embryology and by its comparative anatomy.

Of the pathological conditions of the prostate, which confront the surgeon, none demands more frequent attention than prostatic hypertrophy. According to Dr. Messer's researches, conducted at Greenwich Hospital, it would seem that prostatic hypertrophy becomes of pathological importance in about twenty per cent. of all men over sixty years of age. The following may be considered the histological classifications of the different varieties of hypertrophy:

CLASS A. A uniform increase of the glandular and stromal elements constituting a true hypertrophy; the gland, in this variety, does not attain to great size and seldom causes symptoms of importance.

CLASS B. Overgrowth of the stroma, the connective tissue being chiefly involved, without much change in the glandular elements; this is the form most commonly met with, and may attain to great size.

CLASS C. In which the overgrowth of the glandular tissue predominates over the stromal; this is rarely permanent, the glandular hyperplasia usually disappearing, being replaced by fibrous tissue of greater density.

CLASS D. Which is a localized overgrowth, the enlargement being confined within the capsule of the gland, although with certain portions enlarging more rapidly than others.

ETIOLOGY.—A great many different theories have been advanced in explanation of enlarged prostate. It is, of course, known to belong to the period beyond middle life; of the views advanced as to its cause, those of Velpeau seem the most plausible. He considers the growth which makes up the enlargement in prostatic hypertrophy as analogous to the fibro-myomata so frequently found in the uterus; the arguments in favor of this view being: (1) The prostatic vesicle is the analogue of sinus genitalis in the female; the structure of the prostate and of the uterus is strikingly similar; the histology of the growths themselves is equally similar, differing chiefly in the predominance of the glandular elements in prostatic tumors; and these disturbances occur at about the same time in the sexual life of the two sexes, viz., during the latter half of the reproductive period.

Morbid Anatomy of the Hypertrophied Prostate.—On cut section the surface exudes more than the normal gland, and is more irregular, the grayish-red color of the organ is more pronounced than normal. Microscopical examination does not reveal any new elements, the enlargement consisting entirely of an increase in the structures normally present.

There seems to be a peculiar tendency to tumor formation in hypertrophied prostate, while, in rare instances, tumors are found in what appears to be otherwise normal prostate. Thompson found tumors present in seventy-five per cent. of the cases of hypertrophy examined by him, and Messer

reports isolated tumors in twenty-seven of a series of thirty-five cases of hypertrophy examined by him.

The following case of prostatic hypertrophy may be of some interest (let me add parenthetically, that the case only came under my observation from April 7th till May 1st, and I am indebted to the chief resident physician for the progress and history of the case since that time): During my residency in the hospital in April last, J. C. White, aged (60) sixty, entered the hospital, suffering with retention of urine, claiming not to have voided any urine in (48) forty-eight hours, except a few drops at a time, with almost constant desire, and during the efforts to evacuate the bladder, the contents of the bowel would often escape, the effort at micturition being attended with great pain and tenesmus. On percussing over the bladder I found it distended to within about 2.5 c.m. of the umbilicus. After repeated efforts to catheterize I was unable to introduce any instrument beyond the prostatic portion of the urethra, failing even to introduce a filiform bougie. His bladder was then aspirated, obtaining about 2000 c.c. of urine. The introduction of a finger into the rectum revealed a prostate very much enlarged, apparently about twice its normal size. the middle lobe seeming to show the greatest amount of hypertrophy.

An examination of the urine showed a high degree of cystitis, and, being unable to catheterize, it was deemed advisable to remove the prostate.

The following day the visiting surgeon was called, and the patient was prepared for the combined suprapubic and perineal prostatectomy.

A suprapubic incision was made down to the bladder, the walls of the bladder being sutured to the margin of the abdominal wound, and the bladder then opened; a transverse perineal incision was then done; the fingers of an assistant were used to press down and steady the prostate from the upper opening, bringing it in easier reach of the operator's finger; the capsule of the gland was opened, and with great difficulty the prostate was at last shelled out; in doing this the urethra was torn across. About two hours were consumed in doing the operation.

Neither opening was closed; a small rubber tube about the size of a No. 18 catheter was inserted through perineal opening into the bladder, and gauze was loosely tucked in the upper opening. The patient had a temperature of 100 1-5 the afternoon of the operation, pulse 88 and respiration 20. The following day his temperature had gone up 1-5 degree, pulse 104. That p. m. temperature up still another 1-5 degree, pulse 116. The second morning following the operation his temperature came to 99 4-5, but again rose in the afternoon; he continued a fluctuating temperature chart (often reaching above 102, and on one occasion, May 4, going to 105 2-5) until May 20, when it came down to 100, not going above that point again.

The third day following the operation it was found that drainage was insufficient; so a larger tube was introduced, passing from the perineal opening through the bladder and through the suprapubic opening. The bladder and wounds were irrigated with bichloride solution 1:10000 t. i. d.,

first clearing out with hydrogen dioxid. The dressings for the wounds consisted of sterilized gauze and absorbent cotton, which were changed every three hours, the perineal dressings almost invariably being soiled with the contents of the bowel. On May 1, the continuous drainage tube was removed and separate drainage tubes inserted into the bladder and perineal opening. On May 11, the suprapubic drainage tube was discarded. On May 19, patient had an attack of pleurisy.

June 9, suprapubic opening closed, patient walking all around, voiding urine freely—per urethra—and without pain, now having perfect control of his bowel and bladder; inferior communication with bladder closed. June 22, perineal wound about healed, tube having been removed for some time. July 11, transferred from hospital, perfectly well; can easily go six hours at a time during the day without voiding his urine, and seldom has to empty bladder at night. Has perfect control of bowels, and both wounds have healed perfectly.

Questions and Observations on Pernicious Malaria (Hemorrhagic Malaria, Hemorrhagic Fever, Yellow Chills, or Yellow Disease).*

By E. E. DICKINSON, Smithfield, N. C.

II AM best acquainted with the type of this affection which I think should be known as yellow disease, since the chill is slight and is no ill omen in itself.

What is the nature of this condition? What the real cause and its source? The usual definition is: "It is remittent fever of peculiar type, characterized by sudden jaundice and bloody urine." Its spread has been so recent and its occurrence so limited to certain localities, that adequate investigation and literature have not accumulated. All admit its close relation to ordinary intermittent and remittent malarial fever. But where lies the great difference, one being so malignant and the other so benign? Is the difference one of degree or of kind? Why hæmatogenous jaundice in the one and hepatogenous jaundice in the other?

From the total number of eighteen cases coming under my observation and care, which I have diagnosed strictly pernicious, I have been unable to obtain a history of a single case that had suffered previous ill health or a succession of chills. Indeed, the general history is that they were unusually well. So it would seem that it cannot be a gradual accumulation and multiplication of the different types of malarial poisoning in the system which finally explodes with one mighty shock, overpowering the energies battling against it and decomposing the blood by its electric force. It cannot be distinguished in the beginning from an ordinary chill, nor can it be differentiated until the icterus of the skin appears.

Many cases of hæmaturia occur with an after chill, that are in no sense hazardous and really make but little impression on the system, nor does the

*Read before Seaboard Medical Association, Wilson, N. C., Jany., '99

hæmaturia return even without the aid of quinine. I have seen no case prove fatal or serious except those in which the hæmatogenous jaundice occurred, but no case in which this jaundice occurred proved otherwise than fatal or very serious, and made a very slow, doubtful recovery, requiring several weeks to regain even ordinary health. But unless the physician is more honest than is often put to his credit, he will forget conscience and report all cases of any kind of jaundice with or following chill and hæmaturia as one of pernicious malaria on which his apt remedies have had the happy effect desired.

To one who has seen a case of yellow disease from beginning to end, can there be any doubt as to the differentiation of this jaundice from that accompanying the milder forms of malaria? I think not. The former is too plain for comfort. The difference is that in milder malaria there is a gradual development of hepatogenous jaundice, this development extending over several hours, the discoloration always being obscure and dingy, there being great contrast between the hue of the conjunctiva of the eye and that of the general skin surface. But in the pernicious form the jaundice is hæmatogenous, due to the decomposition of the red blood corpuscles, and it develops very rapidly, usually appearing almost suddenly about two or three hours after the chill, and the discoloration gives to the skin a peculiar metallic lustre, very much resembling that of gold, yet not altogether so vivid. This one discrimination properly made will enable anyone with ease to diagnose this condition, or certainly to differentiate it from the milder malaria.

But other important symptoms are a rapid, weak, and often a flickering pulse, usually reaching as high as 160 pulsations per minute; extreme, incessant and distressing nausea and vomiting; a tendency to dry skin and mucous membrane with, not very frequently, an extremely high temperature, the majority of cases presenting a temperature between 102° and 103° , which persists without fluctuation, except slight morning and evening exacerbations and remissions.

How shall we best prevent the occurrence and spread of this dreaded disease? This is a question of momentous importance. The disease has been spreading rapidly for the last five years, and as yet we know nothing practically of its source: But we look for and believe it to be where least preventable in the low swampy and marshy bottoms and that it is transmitted to us through the atmosphere at night. This, however, lacks proof.

Two observations I note as peculiar. First, Smithfield is situated on the eastern bank of Neuse river and contains more inhabitants than the zone of country with a radius of two miles around it. There have occurred in this zone in the last three years, more than twenty well authenticated cases of this disease and many more of simple hæmaturia. But in the town there has not been one case, and so far as I know not even a case of hæmaturia. Second: In this zone the white and the colored population are about equal, yet all the pernicious misfortunes have visited the whites, not one the colored; though I have seen three cases of hæmaturia in this race. Is the negro

immuned against this disease? Then his serum may yet prove useful in a higher science than Manlyan politics.

How can we best treat this disease? I believe as nearly an iron-clad rule can be adopted in this disease as in any we know, though there are many points of individual difference. Of chief importance is to avoid those remedies that are sure to kill. These four things, morphine, atropine, heroic purging and heroic cinchonizing, I have learned to avoid as I do a grave yard. Yet I believe every text book I have examined recommend the first of this list.

Morphine or atropine given for restlessness and nausea, only increases both and paralyzes the secretion of all glands, the kidneys included. A gentle, sure purgative is efficient and demanded. But too heroic purging with the vain hope of removing the jaundice misjudged to originate from the liver, serves only further to exhaust the already much depressed vitality and to thus knock its last leg from under it. Quinine in sufficient doses to kill an entire family in good health, I believe, is capable of producing more deaths than the disease itself unassisted.

What are the conditions that must be relieved? After arranging to get surely into the circulation fifteen grains of quinine hydrochlorate every twelve hours, only two important conditions are to be met; and these successfully combated and the patient tided over twenty-four hours, one may feel comfortable for the first time. These two conditions are nausea and anemia. Nausea may almost always be relieved by avoiding morphine and giving 3i or 3ii of potassium bromide every two or three hours or twenty or thirty grains of lithium bromide equally often. Also, these are all that are necessary for the restlessness. The anemia and decomposed blood I believe to be the real cause of all the deaths. This is as true exsanguination as that from a spurting artery. Then what is to be done? A new circulatory medium is to be supplied and the debris of decomposed blood removed. The circulation might be renewed by intravenous transfusion, but I have never done it. I have used instead large subcutaneous injections of normal saline solution into the cellular tissue and large saline injections per rectum. I thought this to do too much good, though one case proved fatal in which it was used, but I believe it greatly prolonged life in this. In all cases the pulse grew slower and stronger, thirst was established and nausea succumbed to its demands and the kidneys secreted more freely.

How to renovate the blood? Give no remedy to check hæmaturia as it is only decomposed blood that nature is relieving herself of. The object is rather to encourage this free flow of bloody urine. It is seldom a case dies if the kidneys are doing their duty well. Other symptoms are to be relieved as the indications demand. If fever is high, skin dry and hot, or liver at fault, these must have attention. As an all-around remedy for these conditions and also to keep the kidneys active, two grains each of acetanilid and caffein citrate and four grains each of sodium salicylate and ammonium bro-

mide, all in one powder or capsule every two or three hours, I give with satisfactory effect.

On the above plan of differentiation and treatment my mortality rate has been $33\frac{1}{3}$ per cent.

The Education of Young Girls—The Modern School Curriculum and Its Demands Upon Health.*

BY WILLIAM E. FITCH, M. D., Savannah, Ga.

[Georgia Medical and Surgical Journal.]

THE first thing I ever saw in my life was a woman. It seems that the physician who was awaiting my coming had promised that I should be a girl, and when I arrived on the scene of action he was very much disappointed and looked very angrily at me, whereupon, if my memory serves me aright, I got mad and twisted up my little face and hollered at him as loud as I could. This little defence seemed to bring him to his senses, for he apologized—said I was a fine boy. We shook hands and I was handed to a motherly nurse to have my first toilet made. From that day until this, I have been on most excellent terms with women. The fact is, that I liked them so well, that soon after I graduated I came to the conclusion that it was not well to always live in single blessedness. You will believe me, then, when I tell you I have their best interests and welfare at heart, and this paper is written with the hope that some of the modern educational methods now in vogue may be so changed as not to overwork the child during puberty. The law of growth in the human body is one which has not been always considered in relation to the development of girls. The energies of the body rise and fall in each individual with a certain rhythm. Each swell of physical growth is designated to bring about certain morphological and functional conditions, and when these conditions are not secured at the time Nature is accustomed to bring them about, there is absolutely no possibility of their completion and perfection in subsequent years. The maturity of the sexual apparatus and its function in the girl must be secured in that stage of development known as puberty. It is of all of the periods of growth of the woman the most important for her future health, both physical and mental. Therefore, it is the one above all others which should be considered in the education and training of the girl. All the intelligence and care that it is possible for teachers and physicians to bestow upon her should be given at this time. Not only motherhood and subsequent health, but sanity and life-long happiness are dependent upon the perfection of pubescent growth and function. It does not seem unreasonable, therefore, that the customs and prejudices of the time should be entirely laid aside in considering the proper education of the girl in and before pubescence.

In the first place, it is to be recognized that our present educational

*Read before the Georgia Medical Association at fiftieth anniversary, Macon, Ga., April 16, 1899.

methods, in both private and public schools for young ladies, are productive of imperfect women. From my own study of this subject I have come to the conclusion that many radical changes must be instituted in the care, rearing and education of young girls. My observation leads me to assert that a girl should not be sent to school until about 8 years old, and then kept in school until she is 12 years old, as it is at or about this age the American girl begins budding into womanhood, and progresses with great rapidity until she reaches the fifteenth year. During this period of pubescence the girl's moral and physical nature needs more attention than is usually given. The mothers of this country are ruining the health of their daughters by rushing them through the preparatory schools, being ignorant of the harm they are doing. The young lady during this period of pubescence should have her studies so planned that she will not be overworked—have light tasks, light literature, be under her mother's constant, careful instruction; yet at or about this time, the fourteenth year, the girl, having been rushed by overwork through the preparatory school, is sent away to boarding school or college. And after carefully examining catalogues from the most prominent educational institutions in the United States, the following is found to be about the routine duties:

7 a. m. Rising bell. 7:45 a. m. Down to chapel for prayers. 8 a. m. Breakfast. 8:30 a. m. Up stairs to study hall. 9 a. m. Down to recitation room. 10 a. m. Up stairs to music room; piano. 11 a. m. Recitations, history, etc. 12 m. Dinner. The afternoon and evening is taken up in a similar routine of recitations, calisthenics, dinner and study hours, until the bell taps for lights out, which is about 9 p. m.

It is apparent to all that the young lady is run up and down stairs from 7 a. m., to 9 p. m. Just think of the tax upon her energy at a period in life when she should have nothing to do except light studies, reading, traveling, etc., and be allowed time and opportunity for maturation and development. In female schools it is the yearly history among the girls—the ever-increasing number of *breakdowns*, nervous prostration, menstrual disorders, ocular troubles and hysterical insanity. Neurasthenic states are extremely common during puberty; especially are they met with in high-school girls, who are overburdened with the work put upon them. I have often been astonished at the work which some of these children have to bear. The hours of continuous application which the less mentally able among them have to put in daily are frequently greater than are usually demanded of seasoned adults, and the truly heroic efforts which they often make to bear their burdens are simply pitiful; they are spending more vital force than their income, breakdowns are the result; such breaks are sometimes fortunate, for the attention is then directed to the condition and needful rest is afforded; but many, indeed the majority, manage to carry their burdensome tasks, at least apparently, and the damage done is not so readily detected, but it is none the less real. Headaches, irritable tempers and hebetude are but the indices of the neurasthenic state, which, if neglected at this age will a few years later be recognized as-

nervous prostration. It is because the enormous strain to which they are being subjected is not recognized. While the insanity of puberty is a well recognized condition, it is usually considered uncommon. But in its milder forms it certainly is not uncommon. Various delusions, recognized as such by the victim, occur frequently, but are fought down and concealed from a false sense of shame, to be disclosed later in life, when a broader mental horizon permits the former victim to realize that there was nothing dishonorable in the matter. The psychosis of this period, I have reason to believe, are much commoner than is generally supposed. The interesting feature is that they disappear as the active pubescent changes cease.

A case illustrative of pubescent neurasthenia came under my care some two years ago. The patient, a college girl of 12, who had just begun to menstruate, had an attack of hives. The disorder itself was trifling enough, but her great depression and her weird expression of countenance told of a deeper trouble. Upon questioning her I found that she was always tired at the end of the day, and greatly depressed at the end of the school week, and not always refreshed at the beginning of the next week. Deeming that the forces antagonistic to genesis were in the ascendant, I took her out of school, stopped her music, cut down her physical exertion, and soon had the gratification of finding her at the end of a few months a rosy, blooming girl, free from all neurasthenic manifestations, and gaining rapidly in weight. I did not imagine from this, however, that she was well, but kept up this programme until the beginning of the next school year.

Such cases as this are common enough, and the plan of management is an everyday affair, but to make the management most effective, a recognition of their true pathology is essential, and it is for the recognition of what I believe to be the most important factor in this condition should be borne in mind that the first menstruation is not the beginning of puberty, but is a phenomenon which occurs in the course of puberty. For at least a year before this sign, other evidences of the condition can be noted, and two or more years elapse after that, before the active pubescent period is over.

When pubescence has been established and the girl has become a woman, which is usually after the sixteenth year, it is possible she may now be able to withstand the trials and burdens of our mediæval and pedantic educational curriculum and take her place in the last year of the high school, or begin the college course. Woman must become a productive and independent member of society; she is not to be the ornament that the woman of the Turkish household is, nor the quiet drudge and housekeeper of the German family, and she ought not to be the game of gynæcologists, which the women of the upper classes of society have latterly become. Less than one third of the women of the country are brought up in cities; the surroundings of the country girl are quite different from those of her city cousins, and yet they are much influenced by the same customs and habits of the great aggregations of people from whence civilization takes its name and inspirations; the training of the country girl differs very little from that of the city girl. They

are taught to read and write, spell and figure, write compositions, read French and Latin, and to despise all manner of domestic or manual labor. They dress as their sisters in the cities do, begirt themselves with corsets and other ills of the modern dress, to which I called your attention in a paper on the subject of "tight lacing" at our last annual meeting.

Why are the women of to-day more prone to diseases of the genital tract, and to deficiency of lactation, both evidences of an inferior genetic power, than were their mothers and grandmothers, unless from some change in environment? I see in it evidence of defective pubescent nutrition and trace it, in part at least, to the high pressure of modern life which to-day throws upon growing children new social duties, intellectual labors, and even new physical labors, with consequent diversion of energy into channels of immediate activity which should be potentialized. An objection which will at once be raised is, that the work of the gynæcologist is concerned largely with disorders of an infectious origin, and that the organisms which affect the adult could hardly be much affected by attention to their hosts during puberty. Directly, certainly not, but the soil can be, and in the infectious disorders it is the soil of nutritive element which is much more in need of study than the invading organisms themselves. The ideal life of the child is one in which she comes in contact from necessity and pleasure with all the things which go to make up the physical necessities and comforts of the common life conclusions.

1. At eighth year place the girl in school, public or private.
2. At the twelfth year and during the period of puberty be careful not to overwork her mental faculties, allow plenty of outdoor amusements, travel, light literature, and keep her constantly under her mother's watchful care and attention, that she may be advised of the changes she is soon to experience.
3. After the fifteenth year let her finish the preparatory high school courses and enter college, when her constitution will be equal to the arduous duties she will have to perform (climbing stairs for recitations and prayers).
4. I would advocate that the quarterly anthropometric measurements with quarterly medical supervision should be used as a basis for the diagnosis, for the next quarter's exercises and studies.
5. The curriculum should correspond to the needs of the child's physical and mental capacities.

SELECTED PAPER.

Notes on the Therapeutics of Blistering.

By MEREDITH YOUNG, M. D., Mast. Surg., D. P. H.

[The Therapist, London, Eng.]

IT is not the intention of the writer of this article to discuss fully the whole question of the therapeutics of blistering, but merely to encourage, if possible, its more rational use by the exemplification of successes which have followed its scientific and, less frequently, its empirical employment; in other words, to focus those successful experiments which have been made by clinical observers who have extended the field of usefulness of

blisters after careful argument and patient investigation, and to use the knowledge thus gained as a fingerpost to point out the best way for future extension of their use.

It is necessary, first, however, to briefly summarize the theories of the action of blisters, and roughly these fall into one of two classes, (1) vascular, (2) nervous.

The vascular theory, or, as Milner Fothergill terms it, the "hydraulic theory," is based upon the law of Shroeder van der Kolk, that the blood supply of deep parts comes from the same trunks as that of the superficial parts overlying them. Therefore, by increasing the vascularity of the superficial parts that of the deeper parts is to some extent diminished, and the pathological condition of those parts, so far as it depends upon congestion, active or passive, is benefited. Brunton's theory, that there are, beneath a blistered surface, two other strata, the uppermost of which is congested and the lowest of which contains contracted blood-vessels, finds a coincident phenomenon in Brown-Séquard's experiment in which, on applying irritation to the skin over the kidneys, the superficial vessels became congested, whilst the renal arteries contracted.

As bearing upon this point, too, we may cite Whitla's statement that blisters "may affect neighboring parts by the direct spread of the irritation originally produced, as the peritoneum and pleura have been seen inflamed from the application of a blister to the abdomen or chest; and the writer believes that in this way he has seen pericarditis produced *in thin subjects*. * * * * Through thick parietes a blister would not likely cause congestion of the pleura."

The vascular theory, then, readily explains the utility of blisters in removing passive engorgement, promoting absorption of chronic products of inflammation, stimulating indolent reparative processes, and so on.

For the explanation of other effects of blisters we have to go to the nervous theory, and this, properly speaking, is the theory of counter-irritation. It is not sufficiently recognized that the law of Schroeder van der Kolk applies to the distribution of nerves as well as to that of blood-vessels. Quite apart from the anatomical fact, we have many proofs in practice that this is so, a simple instance being that an anodyne lotion over the skin of the knee-joint will materially lessen pain in the joint itself. This gives us at once the key to the manner of action of blisters, and particularly of "flying-blisters," in rousing patients from a state of coma or adynamia. The irritation of the peripheral nerve-endings is transmitted to their centres, and is radiated or reflected from these centres to various other parts of the system.

Certain beneficial results following the action of blisters are not to be explained by either of these theories alone; and, indeed, in most instances both vascular and nervous influences are bound to be appreciably and simultaneously exercised—for example, the increased metabolism and nutrition, usually localized, but sometimes even general, which follows their use.

Robin has shown that blisters encourage phagocytosis, and also increase

the amount of air passing through the lungs in a given time. This observer declared that by the use of blisters it was possible to double the amount of oxygen absorbed by the lung-surface during a short time. This would also explain the use of blisters in pneumonia, and in certain kinds of narcotic poisoning where oxygenation of the blood is the essence of treatment.

The modes of producing blisters are many, and are sufficiently well known. The various preparations of cantharides are the principal agents employed, and are graduated in strength so that one may obtain practically any desired degree of action. The emplastrum cantharidis is productive of little or no pain in its vesicant action. This should be borne in mind, as it may be a disadvantage when we desire to stimulate. When a quick effect is desired the acetum cantharidis—or, better still, the liquor epispasticus—is indicated, and the same rule applies when a purely local effect is intended. The fact that the active principle of cantharides is absorbed through the skin and eliminated chiefly by means of the kidneys should be remembered. It is made the basis of a caution in a subsequent paragraph.

Where cantharides is contra-indicated, a ready means of blistering is found in the actual cautery, or, perhaps better still, in soaking a piece of gauze or absorbent wool in liq. ammon. fort., applying this to the skin, and covering with a watch-glass or piece of oiled silk for a few minutes.

In applying blisters it should be seen that the skin is quite free from oily matter and perspiration or moisture. The former is, of course, attained by the use of soap and water, and the latter by wiping with absorbent wool, or better, by dusting with a little Fuller's earth, violet powder, etc., and then flicking this lightly off before the blister is applied.

The old-fashioned method of preparing a surface for blistering was to cleanse it with vinegar and water, and it had at least two advantages: firstly, that the active principle of cantharides is soluble in acetic acid, whereas it is not so in water; and, secondly, that vinegar has a detergent effect, and assists the removal of accumulated layers of cuticle.

The preparation of the surface before the application of a blister is well worth attention; if it be not seen to, the skin may often not even be reddened after several hours, and both doctor and patient be disappointed.

Blistering must be employed cautiously under the following circumstances:

- (1) In thin persons, immediately over any organ which lies near to the surface. The reason for this has already been given.
- (2) In the case of paralysis, where the trophic function of the nerves being lost or impaired, a blister may degenerate into an ulcer, or may even slough.
- (3) In the exanthemata. One reason for this is that, in children especially, even a mustard plaster may produce a slough, owing to the peculiarly tender condition of the skin. Another reason, which applies only to cantharides, is that in such diseases as enteric fever, scarlet fever, and diphtheria, we have circulating in the blood a toxin which of itself is frequently suffi-

cient to produce albuminuria, and if we add to that another substance, one of the effects of which is also albuminuria, it may have the same result as the putting of the last straw on the camel's back.

(4) In children, especially the very young, where from what may be perhaps best described as the closer knitting together of the various tissues, irritation may readily be conducted from one part to another. The shock to the system and the resulting depletion from a large blister must also receive careful consideration in such subjects, as well as in very old and feeble persons.

(5) In kidney diseases of any kind whatever. The writer has once seen a case where a small cantharides blister was applied to the back of the chest of a patient suffering from pleurisy and nephritis, in which the urine became smoky within twelve hours, and an acute exacerbation in the loin pain was caused, although previously the urine had been quite free from blood casts, epithelium, etc., for some time, and in which only a slight haze had indicated the presence of a trace of albumen for three days. The blister in this case was only left on for about three hours.

(6) In lingering diseases, and those in which the patient will have to be confined to bed for some time, no point of pressure should, of course, be blistered.

(7) In cases where blistering is used in delirious patients, or even in very young children, it is better to paint with one of the blistering fluids. If a plaster be applied, the patient may tear this off, or displace it so that it would come to be over a dangerous part, *e.g.*, it may be moved from the forehead to the eye.

(8) In pregnancy cantharides blisters must be cautiously used because of the probable irritation to the genito-urinary system.

It is not intended to discuss the more common use of blistering, but only to mention those which are new in practice or have been recently lost to sight.

As a mode of the *endermic administration of drugs* blisters are not very often used, though they have some excellent applications.

In *neuralgia* it is sometimes found that though local counter-irritation and local anæsthesia have failed to benefit the patient when used separately, when used simultaneously the joint effect has at once dispelled the pain. It is curious that in spite of the fact that capillary exudation is taking place, absorption should be not only possible, but should occur quickly at the same time. It may be, however, and probably is the case, that the effect is purely nervous, and that the blister having removed the epidermis, the terminal nerve-filaments are brought more directly under the influence of the anæsthetic. When drugs are used for endermic application in this manner the dose should be a fairly large one— $\frac{1}{4}$ to $\frac{1}{2}$ gr. of atropine may be given, for example.

There may of course, be no necessity for the admixture of an anæsthetic in all cases—blisters *in se* have a certain analgesic effect.

A phase of practical counter-irritation which one seldom sees nowadays is the application of large and *dilute* blistering agents over large tracts of skin, chiefly on the abdomen and chest. This was at one time a favorite method of treatment in certain low types of enteric fever, typhus fever, and other anodynamic states where the condition was not so much one of exhaustion as temporary depression. Used in this way, two things must be observed: (1) The blistering agents must be dilute, and kept on for a short time only, so as to act as skin stimulants. (2) Some diffusive stimulant must be administered internally at the same time. The cardio-vascular centres are often wonderfully affected by this treatment. Murchison recommends the application of blisters to the shaven scalp or forehead for the same condition, and says "he has known cases of deep coma where life seemed to be saved by its use."

In stubborn cases of *insomnia* with delirium, the effect of opiates may be enhanced by the application of a blister to the forehead or nape of the neck.

In *lung congestion*, and especially in the passive engorgement of enteric fever, blisters have often been recommended as beneficial in the same manner as blood-letting. It must be pointed out, however, that blisters applied in such a condition are very liable to develop into ulcers or sloughs of a very troublesome and exhausting character.

Ordinary mustard poultices offer almost the same benefits, with this addition, that the stimulus may be frequently repeated without any disadvantage resulting.

In *pericarditis* blisters should be employed with very great caution, and if there is even a suspicion of concomitant kidney mischief they are better entirely avoided. If, however, their use be specially desired to lessen effusion, they should be applied only until vesication has just commenced, then quickly removed, and a simple poultice applied to encourage further exudation.

In *heart mischief*, combined with *intermittency or irregularity*, one of two things may give relief: (1) Paint the blistering fluid in a kind of square *round* the cardiac area, not over it, and carry two prolongations of the painting up into the neck over the sympathetic nerves. This is often sufficient to give comfort in itself. (2) If no benefit follows the actual blistering, then open the blisters and apply a little lint covered with ung. belladonnæ over the cardiac area for a few days.

The use of the blister over the sympathetics in soothing an intermittent heart was first, it is believed, pointed out by B. W. Richardson. In one of his cases morphia could not be tolerated because of the nausea and depression it produced; a blister was then tried over the whole of the front of the neck, with immediate and marked benefit. In a second case of intermittency with irregularity and palpitation, such as to keep the patient awake at night, sound and refreshing sleep followed as soon as the effects of the blister began to be felt.

The treatment of *acute rheumatism* by the application of large blisters to every implicated joint (the Davies-Hall treatment) is one which appears

to have little to commend and much to condemn it. It is principally to be deprecated as not treating the disease, but merely a symptom, and as being liable to cause injury to the urinary organs, which are in an irritable state. The sole recommendation for it appears to be that it reduces joint effusion.

Cases of *ringworm*, particularly in the scalp, are often marvellously benefited by the application of liq. epispasticus to the affected part, which has been previously cleansed, and over which the hair has been cut short. A single painting is often sufficient. Care must be taken that the fluid does not run over adjacent delicate parts. This may be avoided by smearing a ring of vaseline round the affected spot first. I would not, however, yield the palm to anything but the liniment of iodine for this condition.

Probably arguing on the same lines, *e.g.*, that *alopecia areata* is a parasitic disease, Sabouraud advises the blistering of the bare patches in this disease, afterwards opening the blisters and painting with a solution of silver nitrate, 1 in 15. Over a hundred cases treated in this way are said to have given rapid and complete cures.

Watson recommended blisters as specially useful in *scrofulous* affections, and several authorities state that blistering cases of *lupus vulgaris* usually causes the nodules to shell out, leaving a healthy surface, which may be healed by the application of some emollient—*e.g.*, zinc glycerine jelly.

Whitla states that the Russian peasantry cure *hydrophobia* by the prompt blistering of all bitten parts, the tincture of cantharides being at the same time taken internally. This is a statement which must be carefully weighed before acceptance.

It is in the field of nervous diseases, however, that blisters find their most extensive use, and in that field, perhaps, most commonly in *neuralgic* affections. In these cases Anstie's rule should never be forgotten, that blisters over the painful spot increase the pain, but applied over the posterior roots of the spinal nerves relieve it. In what Fagge calls "the desperate *tic-doloureux* of old age," a blister to the nape of the neck frequently dispels the pain at once.

For *sciatica* the best results are obtained by small-flying blisters over the course of the nerve.

Dr. Wade, of Birmingham, advocates blistering of the back as a useful means of treatment in *diphtheritic* paralysis. In *narcotic poisoning* the patient may usually be roused by the application of blisters to the spine, insides of thighs, temples, etc.

In *neurotic hiccough*, and especially in that peculiar form produced by a sudden nervous shock or fright, blistering the epigastrium almost always proves beneficial. Blisters to the sides of the neck, over the sympathetics, also give frequent relief in this condition.

In certain cases of *facial spasm* blistering is useful, but care must be taken to distinguish the cause of the condition, as this influences the point of application. In children, where the spasm is merely the result of a wilful habit of distortion of the face, the blister should be applied over the skin which moves during the distortion, thus rendering the twitching movement painful. Care must be taken to discriminate choreic conditions.

North Carolina Medical Journal.

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Editorial.

INSECTS AS DISSEMINATORS OF MALARIAL POISON.

Much interest has been aroused by recent investigations into the various routes by which the poison of malaria gains an entrance into the human body. The names of certain Italian physicians and that of Major Ross, of the British Army in India, are most prominently connected with the theory of inoculation through the skin by means of the bite of insects, notably, the mosquito. Until recently it was pretty generally held that the poison found its way into the human organism by way of the intestinal canal or the respiratory tract. The observations of the above mentioned investigations, however, apparently demonstrate that the former of these routes is at least a very unusual means of entrance. In their experiments, conducted for the purpose of deciding this point, healthy persons were permitted to drink water from malarial marshes, and enemata of similar waters were given to others; while Grassi and Felitti gave blood from malarial patients to healthy subjects, yet in no single instance did malarial poisoning result. It would seem, therefore, that this phase of the question was definitely settled, unless some condition which is present in natural infection was unintentionally omitted in the experiment.

As regards infection by the respiratory tract the matter is not so clear, and the almost universal belief held by the inhabitants of malarial sections that sleeping in the open air in such localities is an almost certain means of inducing a malarial attack will require some very positive proof to the contrary before the theory of entrance by the air passages will be given up. In this connection the observations of Bignami are of unusual interest. He has noticed that the precautions adopted by the inhabitants of the highly mala-

rious districts of Italy for the prevention of malaria are equally effective against the mosquito. They sleep in houses elevated some 12 or 15 feet from the ground by means of stakes or piles; they avoid going out at night; they are careful not to sleep in the open air day or night; their windows are closed by ill-fitting shutters that do not keep out the air, but are some impediment to the ingress of insects; and they pay unusual attention to their mosquito nets, under which they sleep thoroughly shut in. Bignami ascribes the limited height to which malarial miasma is supposed to rise in the air to the fact that mosquitos do not usually fly high from the ground. The view that the chief entrance of malarial virus is through the skin, is further strengthened by the fact that the only manner in which genuine malarial poisoning has been experimentally produced in the human subject is by inoculation with blood from a malarial patient.

There is quite a prevalent opinion in Eastern North Carolina that malarial infection is largely due to the use of surface drinking water, and that the use of bored wells results in a considerable lessening of the morbidity from this cause.

In connection with the theory of inoculation by mosquitoes, Dr. T. W. Davis, of Louisburg, N. C., in a recent letter to the *N. Y. Med. Journal* calls attention to the relative scarcity of this insect in that locality, a conspicuously malarial district, and states that there is no sort of proportion between the prevalence of malaria and the number of mosquitoes; a nearby seaport town being unusually free from this disease, while mosquitoes are rife. We believe that Major Ross has in India found only one kind of mosquito which is a carrier of malarial infection, and the Italian observers mention three such species. It would be a matter of great interest to discover if our native insect belongs to either of these classes.

Meanwhile Major Ross, accompanied by several scientists, has already sailed from England for the west coast of Africa, where during the next two months they will study malaria in its home. This expedition, the first of its kind, is under the auspices of the recently organized School of Tropical Diseases at Liverpool. It is needless to say that the results of their investigations will be awaited with great interest.

STRICTLY BUSINESS.

Medical journals, although professional in character, must have a "business end," resembling, in this particular, the busy doctor, who, while spending his time and talents in a strictly professional calling *must* "tack on" enough business to first charge for his services and then to collect his fees. In this connection we desire to call the attention of all subscribers who are neglectful in regard to remitting amounts due us, to the fact that our treasury is now too nearly empty for comfort, and August bills are due. During the past ten days, bills have been sent to all subscribers in arrears, and while many have recognized the justice of, and heeded our call, others have not, and it is to them we now appeal. We need every dollar due, and

hope those whose accounts are unpaid will come promptly to our relief. While we are on this subject, we wish to speak of some changes we have made in our subscription department that will appeal, we are sure, to your judgment as being likely to reduce friction and work satisfactorily to both subscriber and publisher. All really successful journals collect subscriptions in advance, and this will be our rule in future. One year's subscription is more easily paid than two or five, and doctors are always "annoyed" when they get two or three or more years behind on their journal bills. Following, also, what appears to us to be a common sense, business rule, (and justice to the subscriber), we will notify each subscriber a month before his subscription expires and then, in obedience to the general wish of our readers, we will continue sending the JOURNAL until notified that its visits are no longer desired. If, therefore, a reader does not wish to continue a subscriber, may we ask that a postal card be mailed us informing us of that fact?

Arsenious Acid as a Preventive of Yellow Fever.—I. Da Rocha.—Dr. J. P. do Rego Cesar noticed that non-acclimated persons in Brazil, who had occasion to take arsenic for any reason, were not molested by yellow fever, and he commenced to administer it as a preventive, with most satisfactory results, confirmed by the experience of other local practitioners. Da Rocha reports, in this article, the results of daily prophylactic doses of half a milligram of arsenious acid administered during the summer season to the entire force of a certain factory, over 200 men, for the last five years. The men are frequently changing, are mostly unacclimated, live in unhygienic surroundings and infected localities, and take no precautions against contracting the disease. During the terrible epidemic of 1894, three of them were attacked but soon recovered; exceptionally light cases among the prevailing mortality. In the epidemic of 1896 twenty men contracted the fever a few days after their admission to the factory, each having received only a few doses of the arsenic. But the effects were evident in the benignity of the cases, all dismissed from the hospital in from four to six days, while a couple of extra hands only rarely employed and thus not receiving the arsenic regularly, succumbed to the disease. There have been no cases in the factory since 1896, although yellow fever has scourged the city again and again, and formerly ravaged the factory. Another group of 150 men, to whom the prophylactic doses were regularly administered, have also escaped without a single case. Persons just arriving are advised to repeat the dose three times a day the first week, twice a day the second, and thereafter once a day. No one thus treated has contracted the disease to date.

Right-Handedness.—Kellogg believes that the child is born using both hands, arms and legs equally well. Right-handedness is the result of careful training on the part of nurse and parent. Left-handedness is probably started by a burn, strain, or injury of the right hand during the critical period of babyhood. The great advantage of ambidexterity is dwelt upon, and Alexander Mott, Joseph Pancoast, Samuel F. B. Morse, Leonard da Vinci and Michael Angelo are mentioned among the other notable ambidexters. The crossed fibres to either brain are believed to be a switching off apparatus, intended for only temporary use, and all arguments based on anatomy as forcing right-sidedness are thought to be weak.—*Massachusetts Medical Journal*, Oct. 1898.

Book Reviews.

The Hygiene of Transmissible Diseases; Their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Handsome octavo volume of 311 pages. Illustrated. Cloth, \$2. net. W. B. Saunders, Philadelphia, publisher.

This delightful volume, embodying the subject-matter embraced in the author's lectures upon hygiene, contains much that it is important that every physician should know. The writer does not attempt an exhaustive treatment of the subject of hygiene, but covers in a thorough and exceedingly practical manner that section which embraces a knowledge of the preventable diseases—surely a very important part. That he has performed his task in the most pleasing and satisfactory way any one who reads the book will testify. The first section deals with the exciting and predisposing causes of disease in a complete and practical manner. Under the second head of "Causation, Modes of Dissemination and Prevention of Special Diseases," the remarks upon typhoid fever, tuberculosis, and diphtheria are of especial value, while all the infectious diseases are discussed seriatim. "Under Prophylaxis in General," the different methods of disinfection by chemical and physical means are considered, including a careful survey of the question of immunity and susceptibility. In addition, "Important Precautions in the Management of Communicable Diseases" are considered under the several heads of Isolation, The Sick-room, Clothing, Excreta, Room Disinfection and the Care of the Body after Death. A few pages are also devoted to the subject of quarantine.

A Text-book of Diseases of the Nose and Throat. By D. Braden Kyle, M. D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College, etc. W. B. Saunders, Philadelphia.

It is an encouraging sign of the times to witness the way in which specialists are recognizing the interdependence of special work on the other branches of medical knowledge. This fact strikes one most forcibly in a perusal of Dr. Kyle's book. Much of the material in it is entirely original—to such an extent, indeed, as to make one inclined to doubt some of his conclusions. But when we go over the proofs which he adduces in support of them we are obliged to yield to the correctness of his deductions. These proofs are founded on work with the microscope, in other words are based on a careful study of the pathology of the nose and throat. The result of Dr. Kyle's pathological labors has been to overturn many of the ideas as to lesions of those organs which have hitherto, in this country at any rate, been based chiefly on clinical observation. He also presents in a condensed form, so arranged as to be of the most practical value, the results of the researches of others in the same field. Starting thus with a knowledge of the underlying condition which is to be treated, the therapeutic measures he recommends are such as are adapted to meet the diseased state. The book contains a greater variety of methods of treatment than we have ever met with before in works on this subject. In the discussion of the manifestations of constitutional diseases in the nose and throat, the author shows how clearly he appreciates the precedence to be yielded to constitutional over local measures. The subject of diphtheria is presented most ably, and the reasons given for the most complete

belief in the antitoxin, to procure immunity as well as to cure the disease, are convincing.

Dr. Kyle evidently understands the great value of classification in the study of any subject. Every reader will appreciate the classifications at the head of the various chapters. These tables will undoubtedly evoke criticism from many who will not agree with Dr. Kyle's ideas as to where certain lesions should be placed, but such differences would be bound to present themselves no matter what classification was adopted. The illustrations are by all odds the best we have ever met with in similar books. They represent things exactly as they are seen and not according to the way they are supposed to be seen.

The Mineral Waters of the United States and Their Therapeutic Uses. With an account of the various mineral spring localities, means of access, etc. By James K. Crook, A. M., M. D., Adjunct Professor of Clinical Medicine and Physical Diagnosis at the New York Post-Graduate Medical School, etc. In one octavo volume of 580 pages. Cloth, \$3.50, net. Lea Brothers & Co., Philadelphia and New York. 1899.

The author deserves the thanks of the profession for his successful classification and analysis of the various mineral waters of this country. The need for such a work as we have here, has been distinctly felt, and Dr. Crook has accomplished his undertaking in a manner most satisfactory. In the present volume more than two hundred mineral spring localities have been included that have never previously been described in any work of the kind. In fact this is the only up-to-date source from which a thorough knowledge of the various American medicinal waters can be had, all previous works upon the subject having become more or less obsolete. The first part of the present volume is devoted to general considerations regarding mineral waters and their therapeutic employment; the remaining portion contains a description of the topographical and climatic features of the several States and Territories, with a detailed account of all the mineral springs and wells in each—the whole forming a complete and most valuable collection of information upon this important subject, that we doubt not will be appreciated by the medical profession.

Scribner for September opens with an account by Frederic Irland of what he calls "the finest canoeing country in the world." He made a five-hundred-mile journey from Mattawa to the headwaters of the Ottawa and Gatineau rivers, through a region abounding in fish and moose. It has been for centuries and is now the home of the Algonquin Indian. The region through which Mr. Irland travelled with Algonquins for guides is the best sportsman's haunt left in America. Much of the wilderness is as yet uncharted. The illustrations are made from the author's abundant photographs. He will be remembered as the author of two former sporting articles in *Scribner's*, one on New Brunswick and the other on the Mingan Seigniory.

The Stevenson letters in this number have to do with the Saranac Lake region of the Adirondacks in winter, and describe the outdoor life led by the novelist and his family when he was trying to regain his health.

There is also a story of life and adventure in the Arctic regions, by Albert White Vorse.

Charles Warren (who was private secretary to Governor Russell) contributes a short story describing how a governor went back to his old fitting school and spent a day with the boys.

Grace Ellery Channing tells a love story of southern California, entitled

'Francisco and Francisca,' with remarkable illustrations by Walter Appleton Clark.

There is also another Aunt Minervy Ann story by Joel Chandler Harris.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A. M., M. D. Containing the pronunciation and definition of over 26,000 of the terms used in medicine and the kindred sciences, along with over 60 extension tables. Second edition. Revised. \$1.25. W. B. Saunders, Philadelphia, Publisher.

The fact that a large edition of this book was exhausted in six months, speaks much for its popularity. We have been to some pains to examine this book, and we have not turned to its pages seeking information regarding words found in current medical literature—journals—and been disappointed. The average reader of medical books or journals cannot read many minutes without stumbling over one or more words not clear to him. To him this little book is at once a convenience and a necessity. Flexible covers. Patent Index.

"Through Nature to God." By John Fiske.

In this book of 200 pages, the author, a scientific evolutionist, places before the reader the course of reasoning by which he is enabled to trace the finger of God in the various records that the scientist finds in the rocks of the past history of our globe.

This interesting book has three divisions, each containing several chapters: "The Mystery of Evil," "The Cosmic Roots of Love and Self-Sacrifice," "The Reality of Religion."

It is impossible in the confines of a short review to describe this little book. The author, an ardent evolutionist, is also a firm believer in the existence of God, and starting with the serpent's promise to woman he, in clear English of the choicest diction, passes from argument to argument, step by step, to The Reality of Religion. On page 145 he says:

"The skepticism of our day is rather sad than frivolous; it drags people along in spite of themselves; it spares but few that are active minded. * * * There is no refuge anywhere from the doubting spirit of the age. * * * A young generation grows up knowing nothing of the sturdy faith of its grandfathers except by hearsay, for it sees everything in heaven and earth called upon to show its credentials. * * * The human soul has not been cherishing in religion a delusive phantom. * * * Of all the implications of the doctrine of evolution with regard to man, I believe the very deepest and strongest to be that which asserts the Everlasting Reality of Religion."

To Dilate the Perineum.—Oliver repeats the well-known and oft-stated practice of introducing two fingers of the right hand into the vagina, and with each pain stretch the perineum in advance of the head. Extreme rigidity disappears in a few minutes under this treatment. The patient's attention being occupied by the severity of the pain, no objection is ever raised to this procedure. When the head begins to distend the vulva, the real work begins; but full expansion has by this time been secured. Two fingers are introduced behind the occiput, and this part of the head is brought well down under the pubic arch. The diameter of the head while passing through the outlet will be thus materially lessened, and so also will be the tension on the perineum. Surgically clean cloths, wrung out in hot water, applied directly to a tense perineum, often secure good results.

Medical News and Items.

Dr. James W. McGee has been appointed Superintendent of Health of Raleigh, N. C.

Norfolk physicians threaten to have another medical school there. It is said that the growth of the city justifies this step.

Dr. C. M. Poole, of Craven, N. C., writes: "I have just delivered a white woman of her nineteenth, all single births. The child was a female of 13½ pounds. Who can beat this record?"

Lost in the Mountains.—**Dr. Loryea**, of Manning, S. C., while sojourning in Tryon, wandered from his hotel and lost his way in the mountains. He was subsequently found dead at a distant point. His death was caused by heat and over-exertion.

The bronze statue in memory of **Dr. William Pepper**, Philadelphia, has been placed on its pedestal in front of the new Archeological Museum of the University of Pennsylvania, where it will remain until unveiled early in the autumn.

The physicians of Naples have been soliciting subscriptions for the purpose of founding a hospital for tuberculous patients. The Duchess of Ravaschiero has presented her large and handsome estate at Pozzuoli for the purpose, and the outlook is very flattering.

It is stated that **Mrs. Mary Baker Eddy**, of Christian Science fame, is being sued in amounts aggregating \$500,000 by **Mrs. Josephine Curtis Woodbury** of Boston. Seven different suits are pending, all of which are for alleged libelous remarks made by **Mrs. Eddy** at the First Church of Christ, Boston, Sunday, June 4.

Bubonic plague at Shanghai.—It is announced that there are a number of cases of bubonic plague at New-Schwang, and the number has slightly increased. Twenty-three deaths from the plague occurred in three days. The authorities are taking special precautions, examining all ships and junks from the north. Hitherto junks were not inspected.

Punishment of Rebellious Students.—During 1898, student insurrections occurred in all the Russian universities, and the government has decided on vigorous measures to prevent a recurrence. Any university or high school student who creates a disturbance is to be forcibly drafted into the Russian army and compelled to render service.

Changes at the Baltimore Medical College are announced as follows: **Dr. J. M. H. Rowland** has been made associate professor of anatomy, **Dr. E. L. Whitney** associate professor of physiologic chemistry, and **Dr. Charles H. Potter** associate professor of pathology. **Dr. T. R. Williamson** has been made assistant in pathology and bacteriology, and **Dr. Chas. O'Donovan** appointed clinical professor of diseases of children.

The Bubonic Plague in Europe.—Now that the plague has reached Portugal and is rumored to have been carried to Spain also, our sanitary officers will undoubtedly take energetic measures to prevent its gaining a lodgment in our own country. While it is most likely to come here by way of some British port, if at all, it may come by some more direct route, and this possibility the Marine-Hospital Service will assuredly bear in mind.

Yellow Fever has broken out in Kew West, and general quarantine is ordered. We hope the authorities will be as successful in stamping out the disease as they were at Hampton Roads.

Mr. Sam'l. G. Smith, representing the Purdue, Frederick Co., of New York, is visiting the physicians of Charlotte in the interest of Gray's Glycerine Tonic Comp., an elegant and ethical preparation that has had a large sale in America for many years. Mr. Smith will call on the physicians of the large towns in the State with samples, etc.

Victims of Venereal Disease Forbidden to Marry in Michigan.—A law has recently been enacted in Michigan, forbidding the marriage of any person suffering from gonorrhœa or syphilis. In case this law is disregarded, the guilty party is punishable by a fine of not less than \$500, or imprisonment in the State prison for a term of five years.

A Suit to Recover Medical Charges.—A physician in a village of New York has brought suit against a patient for \$10,000. The physician made ten visits to the defendant's home during a recent illness of the latter, charging him \$1,000 per visit. The defendant has refused to pay, on the ground that the charges are exorbitant. It is not stated in the published report what was the nature of the medical services rendered.

Surgeon James M. Parrott, U. S. A.—Dr. Parrott, of Kinston, well known in the State as a young man of unusual ability, has been appointed Acting Assistant Surgeon in the United States Army.

Surgeon Parrott is a young man of ability—of good parts—of good sound sense, and he is a lover of his profession and a student. We dislike to have him leave our State, but we doubt not he has chosen his new field, Cuba, in order to enable him to pursue certain studies under better conditions than he could at home.

The Evil of Continued Mental Anxiety.—Some years ago I collected the statistics regarding the lives of stockbrokers in a certain city, and was surprised to find that nearly every person who lived a sober life and continuously studied the ups and downs of the money market failed either mentally or physically in a short time—less than a dozen years—ultimately disappearing from active life. On the other hand, the men who were operators of great skill and coolness, and who lived regularly most of the time, but occasionally gave way to the drink habit and disappeared several days at a time on account of helpless drunkenness, lived longer and had fewer mental disorders. This, of course, cannot be construed into an argument in favor of drinking even occasionally, but was to my mind a very strong indication of the benefit coming from the occasional complete relaxation from intense mental anxiety. Frequent vacations passed in the woods, or at the seaside, without social duties, and where temporarily men could resort as nearly as possible to primitive life, even for short periods, would, I am convinced, be much better. Protracted anxiety without rest breaks more men than does hard intellectual effort.—"*System of Practical Medicine*," Vol. iv., p. 784.

The Plague is apparently spreading gradually in various directions, Europe being threatened from several sides. At Oporto forty-nine cases occurred between June 4th and August 21st, of which number sixteen terminated fatally. The government has decided to isolate the city by means of a sanitary cordon. Dr. Jorge, the director of the Bacteriological Institute at Oporto, has become the object of popular disapproval because he

had the courage to assert that the plague existed in the city when the authorities wished to conceal its presence. A mob gathered near his house and was dispersed only by active efforts of the police, and he was also assaulted by a member of the Chamber of Deputies. The disease was brought to Oporto from India on a ship loaded with rice. It is reported that several cases of plague have occurred at Palermo and at Naples, and it is also believed to have broken out in the government of Samara in Russia. Several cases of suspected plague have occurred at Magude, a short distance from Lourenzo Marquez, Delagoa Bay. There is little danger of the disease being brought to this port from Oporto by immigrants or in cargo, but if it is true that rats are active in the spread of the disease, there would probably be some danger in allowing a vessel from an infected port to dock here, even if there were no cases of the disease among either passengers or crew at the time of arrival.—*Med. Record.*

Osteopathy Declared Unlawful in Pennsylvania.—The Medical Council of the State of Pennsylvania decided on May 24th that the practice of osteopathy within the State is illegal, and that those therein engaged are amenable to the law.

Cancer Study.—At a meeting of the British Cancer Society, it was resolved to send Mr. Arthur C. Duffey, M. B., to the United States to investigate what is being done in the way of cancer study in the Buffalo laboratory.

Sanitarium at Fayetteville.—Drs. Marsh and Highsmith have erected a handsome, three story, brick Sanitarium at Fayetteville, and have fully equipped it with modern appliances. We wish the doctors success.

The *Times of India* publishes an extraordinary account of the plague outbreak in Samarkand. The outbreak occurred at the village of Anzop, which is situated on an almost inaccessible mountain crag 14,000 feet high. When the Russian doctors arrived they found 380 cases of plague among the 600 persons of which the population consisted. All but three of these cases terminated fatally. Dr. Lieven, one of the members of the party, had brought from Bombay a supply of Dr. Haffkine's prophylactic serum, and with this the survivors were inoculated. After this treatment there were no new attacks, and the last death occurred four days after Dr. Lieven's arrival. The result is regarded as a triumph for the Haffkine method of treatment. The disease was conveyed to Anzop by a wandering fakir.—*Med. and Surg. Review of Reviews, Lond. Eng.*

A Tale of a Wicked Druggist Who Substituted.—Once upon a time there was a man of parts, who was also a physician.

And the skill of this man was so great that the people of the land were wont to flock unto his office for advice, and incidentally medicine. As the years passed by he grew in wisdom, and the sick and suffering who sought relief from him invariably found it, for his consultation price was five. And to those whose red blood corpuscles were few and far between he always prescribed a favorite medicine, the like unto which there was nor is no equal, no not one. And the name thereof was Pepto-mangan.

And the pale people who took this medicine grew well and strong, for their blood became good. Then their souls would be full of gladness and they would return unto the Doctor laden with milk and honey, for by his advice had they not found health and happiness? And the Doctor was glorified in the eyes of his patients, and many shekels were his.

Now there was a certain Druggist to whom the people were wont to take

the Doctor's prescriptions to be filled. His face was that of an Angel, and a small halo of his own manufacture encircled his fair forehead. But his heart was black within, and verily he was possessed of a devil. And when he saw the great sale of Pepto-mangan, and the countless prescriptions which the Great Doctor was writing for this marvelous remedy, his heart was full of envy and greed.

"Why," cried he, "should not I, with all my knowledge of mixing drinks and medicines, prepare a remedy like unto this Pepto-mangan?"

So out of the iniquity of his heart he prepared him a substitute.

And to the many who came to his store clamoring for Pepto-mangan he would say that he was just out of that particular preparation, but that he had another "quite as good, if not a little better." And the good people looking up at his halo believed him for an honest man and went forth from his store well pleased at his kindness in giving them something even better than what the Doctor ordered. To others he would say nothing, but would fill their prescriptions with his own concoction and send them away in ignorance of what he had done.

And as the shekels poured in on his counter like golden rain, his soul laughed with glee, for in his mind he saw himself rich beyond compare.

But the people grew well no longer.

No more did they repair unto the Doctor with thankful hearts. Instead of returning unto him with praise and thanksgiving as before, they approached his sanctum with lamentation and wailing. And curses were his, instead of shekels.

"What ho," quoth he. "Wherefore am I getting it in my cervical region? Can it be possible that I, even I, have become a 'has been'? Or has my favorite tonic failed me in my old age?" And he made talk with his patients, seeking knowledge whereof they were no better. And after many questionings he learned of the iniquity of the man of Drugs. Then he was wroth, and with voice like the raging wind he poured forth unto the heavens the crime of the Druggist.

And all the people heard.

Therefore did they meet together, and with one accord hastened unto the store of him who had defrauded and cheated them.

And their anger knew no bounds, for they took him out into a lone place and with no unnecessary ceremony, *hanged him to a tree.*

Then on his breast was pinned a card on which were written the fateful words—"Not what he wanted—but something just as good."

No more thereafter was substitution known in the land, and the people thereof became well and lived happy ever afterwards.

TO DOCTORS.

Moral.—Beware of substituting Druggists if you expect to cure your patients.

TO DRUGGISTS.

Moral.—Beware of the wrath of the Doctor and patient on whom you practice substitution.—*Vermont Med. Monthly*, June, '99.

Obituary.—A few days ago Dr. John N. Nisbet, of Waxhaw, passed away. He was born in 1823, and had led a very active life, practicing medicine and surgery in Waxhaw. He leaves three sons who are practitioners of medicine, Dr. J. D. Nisbet, of New York City, and Drs. W. O. and Verner Nisbet, of Waxhaw.

Review of Medical and Surgical Progress.

Cerebraspinal Pneumacoccus Infection.—Dr. Bayard Holmes (*Journal American Medical Association*, 1899, Vol. xxxii, No. 24) reports an interesting case illustrating an obscure manifestation of pneumacoccus infection. The case presented the following history: A girl 15 years of age had been suffering during five (5) weeks, the attack was initiated by a chill of great severity, followed by high temperature and severe headache, the temperature fluctuating about 104° and 105° F. for nine (9) days, when there was complete remission. At the end of a week there was a return of all symptoms, which continued seven (7) days with a second remission. Two succeeding relapses occurred at weekly intervals, and it was during the fourth relapse that the author first observed the girl.

The face and body at this time showed some emaciation, pupils were dilated and there was vomiting at short intervals. The respirations were slightly accelerated. The only abnormal sensation was a general hyperesthesia, and the severe headache which was referred indefinitely to every part of the head. The hearing seemed to be equal in both ears, the sight seemed perfect in both eyes, and there was no perversion of taste. The heart, lungs and abdomen were negative on examination. The blood was examined, and relapsing fever and malaria were both excluded. The blood count showed a slight leucocytosis, but otherwise was perfectly normal. When this result had been determined a needle was introduced into the spinal canal at the junction of the third and fourth lumbar vertebræ, and the cerebro-spinal fluid allowed to run off, drop by drop. Two agar tubes and two blood-serum plates were inoculated from this serum. In twenty-four hours they had every one shown a pure culture of a diplococcus, apparently the diplococcus of pneumonia. It was by this method that the author was able to definitely determine the pathologic character of the disease.

R. L. F.

Treatment of Chronic Morphinism—Dr. Austin J. Pressley (*Journal American Medical Association*, 1899, Vol. XXXIII. No. 7) says the principal advantage to be derived from the method of slow reduction of morphine in chronic morphinism, is the lessened amount of discomfort to the patient.

Usually there is no pain or diarrhœa, no vomiting, no profuse perspiration, no extreme nervousness, and never anything like a state of collapse.

I always endeavor, and in 90 per cent. of the cases am successful in so far restoring the nervous system to its normal condition in advance of withdrawing the morphine that the amount withdrawn is not discovered by the patient. It is easily understood that the nervous system is in a most unfavorable condition for recuperation while the patient is suffering for want of morphine. The effect of any drug that may be given him as a substitute, or to quiet him while withdrawing the morphine, is equally as bad and may be worse than that of morphine itself. When the largest amount has been withdrawn, that can be done and still leave the patient comfortable, then the reduction must cease until the system has had time to adjust itself to this new condition of things. The real key to success is to keep the patient on just as small a quantity as is compatible with comparative comfort, and yet not get his dose so small that he will be miserable before the next regular hour for morphine. I give the morphine four times a day, at 7 a. m., 12 m., 5 p. m., and 9 p. m. In dividing the time in this particular manner, the patient gets his dose just previous to meals and bed time, which enables the patient to eat and sleep much better.

It is useless to ask a patient to take nourishment when he is needing morphine, and no one thing is more essential to an easy and rapid recovery than a good appetite, and there are no drugs that can compare with plenty of good food and sleep to restore the nervous system.

One who treats morphinism has no time for other practice. The most suitable place to care for these patients is in institutions devoted exclusively to that class of work, where physicians and attendants can constantly have an eye on each patient in the institution. So far as medicine is concerned, no fixed formulæ can be given; every case is a law unto itself and must be treated according to its particular condition and requirements. Baths and massage are beneficial in many cases.

In the treatment of about two hundred cases upon the above plan, my experience has been that in direct proportion to the success attained in recuperation previous to the reduction of morphine, has been the lessened amount of discomfort to the patient, and in the cases, only, that have shown little tendency to recuperation in spite of all efforts, has there been sufficient discomfort to be worth mentioning.

R. L. F.

Acute Dysentery.—Dr. St. J. V. Graham (*Georgia Journal of Medicine and Surgery*, July, 1899) states that the drug treatment of acute dysentery resolves itself into five or six drugs—calomel, opium, ipecac, tannopin, salines and quinine. If the case is seen early when diarrhea is present, with a lead-colored or brown tongue, much benefit may be derived from giving calomel, a quarter-grain every fifteen minutes, until six, eight or ten doses are taken. An acid saline is then administered, after which bile usually begins to flow. This is nature's antiseptic, and no chemical compound or so-called intestinal antiseptic can be compared with it. After this has been kept up for a sufficient time for the exigencies of the case, tannopin should be administered, combined with ipecac and opium, in the form of Dover's powder, or of each drug in simple powder combination. Tannopin should be given in ten or fifteen grain doses every two and one-half or three hours. An ice bag over the belly is preferred by the writer to any form of poultice. If necessary the bowels are irrigated with a bisulphate of quinine solution—one teaspoonful to a quart of cold water. Very little quinine will be absorbed, for it will not stay in long enough. The diet should be carefully adjusted to suit individual peculiarities and the stomach digestion. Stimulants should be used as indicated. The above treatment, which is indicated in acute cases, has proved very successful. In chronic cases, however, an essentially different drug treatment should be resorted to.—*Buffalo Med. Journal*.

According to the *Medical Record*, under the Spanish rule, in order to practice legally in Cuba, it was necessary to hold a diploma of the University of Havana or of some University in Spain, vised by the proper authority of the district. Those holding foreign diplomas were obliged to pass an examination or to obtain a temporary license. Since the expulsion of the Spaniards, the *Archives de la Policlinica* complains, many foreigners have come to the island and begun practice without let or hindrance. Our contemporary naturally holds that such an abuse should be stopped by the authorities now governing the country.—*Medical Age*.

Water Famine.—London is threatened with a water famine, as she always will be in summer until she gets some other source of supply than the charming little brooklet, disguised under the name of "Father Thames."

Therapeutic Hints.

Intestinal Fermentation with Consumption.—

- R. Ext. aloes.....gr. vi.
Pulveris rhei.....gr. vi.
Bezozol.....gr. ix.
Ext. hyoscyami.....gr. vi.
M. Ft. caps No. xii. Sig. One after meals

—Thomas Hunt Stuckey.

In Congestion of the Female Genital Organs.—

- R. Magnesii sulph.....45
Ferri sulph.....
Manganes. sulph.....aa 10
Acidi sulphur. dil.....4
Aquæ destill.....ad 200
M. S. One tablespoonful in a wineglass of water before meals.

To Stimulate Diaphoresis.—

- R. Camphoræ pulv.....0.02-0.1
Pulv. opii.....0.02-0.03
Potass. acetatis.....0.02-0.3
Sacch. alb.....100.
M. ft. pulv. S. One powder in a cup of tea at bedtime.

—Graefe.

Professor Ewald prescribes in obstinate acute intestinal catarrh:

- | | |
|-------------------------|---------------|
| Resorcin..... | 75 grains |
| Bismuth salicylate..... | aa. ½ ounce |
| Tannigen | |
| White sugar | |
| Sodium carbonate..... | aa. 2 drachms |
- M. Ft. pul. Sig. small teaspoonful every two hours.

—Georgia Medical and Surgical Journal.

Food in Typhoid Fever must be fluid and nutritious, and must admit of almost complete absorption by the stomach. It must be non-fermentable, or, in other words, aseptic. While milk will always constitute the patient's main dietetic reliance, it possesses two distinct disadvantages: 1st. It leaves a residue after but partial stomach digestion—hard curds or coagula which mechanically irritate the ulcerated patches. 2nd. It ferments in the bowel, and furnishes pabulum for germ propagation. It thus adds to the existing septic infection.

Liquid Peptonoids is an ideal food-help in typhoid fever. It is fluid. It contains the required amount of nutriment. It is completely peptonized and therefore capable of complete stomach absorption. No residue is left for intestinal digestion. It is absolutely sterile and aseptic. It cannot, therefore, add to fermentative processes. In addition it is very palatable and forms a grateful change from milk which often palls upon the appetite. It is also slightly stimulating. Such a combination of qualities leaves nothing to be desired. It can be taken plain or in milk or water as preferred.

INTRAGASTRIC NIPPERS.—Turck, of Chicago, has devised a small instrument by means of which small pieces of the gastric mucous membrane can be removed for microscopic examination, says the *International Medical Magazine*. It consists of pinchers, which can be protruded through the end of a stomach tube and closed upon a fragment of tissue.

SYR. HYPOPHOS. CO., FELLOWS

Contains the Essential Elements of the Animal Organization—Potash and Lime ;

The Oxidising Agents—Iron and Manganese ;

The Tonics—Quinine and Strychnine ;

And the Vitalizing Constituent—Phosphorous, the whole combined in the form of a Syrup with a Slightly Alkaline Reaction.

It Differs in its Effects from all Analogous Preparations ; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited,

Its Action is Prompt ; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products. The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy ; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical*, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution*, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. *Fellows.*"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

MR. FELLOWS, 48 Vesey Street, New York.

When writing, mention the N. C. Medical Journal

PUTREFACTIVE PROCESSES.

As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, LISTERINE possesses great advantage over other antiseptics in that it may be administered freely, being non-toxic, non-irritant and non-escharotic: furthermore, its genial compatibility with syrups, elixirs and other standard remedies of the Materia Medica, renders it an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life.

An interesting pamphlet relating to the treatment of diseases of this character may be had upon application to the manufacturers of LISTERINE.

LAMBERT PHARMACAL CO., SAINT LOUIS.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, SEPTEMBER 20, 1899.

No. 6

Original Communications.

The After Treatment of Abdominal Operations.

By Dr. FRANK T. MERIWETHER, Asheville, N. C.

“THE fate of the vast majority of patients subjected to abdominal sections is sealed when the incision is closed.” So I read in a recent article upon after treatment of abdominal sections. This I believe to be a mistake. The closing of the incision does not complete the operative treatment. Much can be done afterwards to make or mar the success of the operation. I have seen several fatalities caused by defective after treatment, where the operation per se was a perfect success, in which the operator thought the operation was the end of therapeutics. I believe the after treatment to be a very important thing in all sections, no matter for what.

Who has not seen patients die from shock, when proper treatment for the first few hours would have saved them?

The treatment of shock depends to a great extent upon the degree thereof. Mild shock is usually overcome by hot external applications, but in the more severe cases more must be done. One of the best stimulants for these cases is an enema of strong hot black coffee, followed at intervals of three to four hours by that of hot salt solution also by the rectum, particularly if much blood has been lost. The coffee may be repeated one or more times, and may be combined with brandy or whiskey. Hypodermics of camphorated oil in some cases are very useful, particularly in nervous cases. Strychnia and nitro-glycerine should be given freely hypodermically. Shock is frequently prevented by operating in a room heated to the temperature of 85 to 90 degrees, F., and by leaving the abdomen full of hot salt solution.

Immediately after the patient has recovered from the immediate shock and effects of the anesthesia, begin giving a cathartic, particularly if there has been much handling of intestines or if there is a peritonitis present.

No one who has ever witnessed the easy convalescence and the freedom from the pain and discomfort which always accompanied the old method of not moving the bowels until the third or fourth day, that you get when the patient has one or more evacuations during the first twenty-four hours sub-

sequent to the operation, would ever omit the early use of calomel or salines or both. I have had several times opportunity to operate upon patients with appendicitis, in which the family physician had already given calomel for several hours preceeding the consultation, and in which cases four or five one-drachm doses of magnesia sulphate given hourly, five hours after the operation, produced free catharsis. No morphia was ever required, nausea and distension were never present, and convalescence was an easy matter.

I prefer giving five grains of calomel three or four hours after the operation, followed in four hours by drachm doses of salts. The salts do not aggravate the vomiting, but rather allay it, in some cases seeming actually to stop it, and it undoubtedly lessens materially the thirst consequent upon the anesthetic. All the water the patient gets is what she gets in taking the calomel and salts until the bowels move. If, however, they do not move after eight or nine doses of the salts have been given, use large rectal enemata. They accomplish good in relieving the patient of a certain amount of gas, even if they do not at first cause the bowels to start moving.

It is in my experience very rare that relief from gaseous distension is obtained by the use of the rectal tube when the distension is great. The sigmoid is pressed into the upper rectum, forming a valve, and it is very difficult to pass a tube through this portion. I have tried it through a rectal speculum, and have seen it tried by others without success. Peristalsis is what we want, and we must obtain it from above. The enemata, with glycerine, salts, or any other medicines desired, are serviceable by the irritation caused by the presence of a foreign body in the rectum, and I am tempted to think that flow of gas through the tube inserted is often from the same cause. I have seen the tube used and gas and fecal matter escape, when the finger in the rectum would discover the tube coiled up in the bowel and not reaching above the valve spoken of before as being formed by the sigmoid forced into the rectum. Mechanical dilation of the rectum with the speculum or proctoscope, is sometimes of service by causing irritation and stimulating peristalsis, or in extreme cases the postural treatment, as suggested by Kelly. Anesthetize the patient and place her in the knee and chest position, and with a proctoscope dilate the rectum. But, as I say, it is not only the large intestine that is distended, but also the small, and from the pressure exerted by it upon the sigmoid and colon, the anatomical relations are so distorted that medication or mechanical interference from below is not of much service. Morphia is the most abused drug that we have in the after treatment of these cases. There are very few cases which cannot get along without morphia by the patients using self control and by having a nurse who will control the patient, particularly if the bowels can be moved within twenty-four hours. I do not think that all cases can do without it, and I would not withhold it from one who was actually suffering from the want and need of it, but I do think that in the majority of cases the actual amount of suffering is increased by giving it even in small doses. The constipating effect makes it hard to move the bowels, and the pressure from them adds to the pain otherwise felt,

and so the morphia must be repeated. I think that by giving cathartics or salines the use of the morphia might be obviated. One of the hardest parts of the after treatment of these cases is the fight one has to make with the family physician to prevent him from using morphia, with good intentions undoubtedly.

For the relief of pain, chloral per rectum for the first two or three days is probably the best drug. Occasionally I have used it by the mouth when there was but little nausea, with very happy effect. Codeine hypodermically I also use. It is not so constipating as morphia and at times acts like a charm.

As a rule vomiting is lessened and in some cases stops entirely when the salts are given. If very obstinate, large draughts of hot water, or washing out the stomach will usually allay it. When principally nervous, as it is in patients who are more or less hysterical, I frequently use a prescription composed of menthol two grains, cocaine two grains, alcohol one drachm and water to make two ounces. A teaspoonful of this to be given every hour if necessary. This is a most excellent remedy in any nausea, as in the vomiting of alcoholism, etc.

A very unpleasant complication is a frequent rise of temperature every day or two without any apparent cause. This is often due to intestinal disturbances and toxemia, from imperfect digestion. If possible the patient should be kept upon a milk and limewater diet, or at least a liquid diet for at least five or six days. In several patients I have seen even milk itself cause a rise of temperature with coating of the tongue, and in which gralum, granose or some other starchy food only was tolerated. These cases are sometimes very worrying, the operator imagining all kinds of infections, but a free catharsis drops the temperature to normal. By finding out the idiosyncrasies of each patient and being governed thereby, and keeping the bowels moving twice a day, and giving frequent large hot enemas these disturbances will not occur.

When the patient is doing well I do not remove the sutures until the ninth or tenth day, unless for some specific reason. I think union is better, the sutures supporting the tissues materially. The tendency is towards still further increasing the length of time they should be left in. I think hernia would occur less rarely if they were left in even as long as a month. If the operation is an aseptic one they can do no harm. I have seen several incisions gape when the sutures were taken out early and infection occur in the line of incision, which probably would not have occurred if they had been left in a longer time.

While hardly pertaining to the after treatment, I wish to speak of the prevention of stitch abscess. They are caused, not by infected suture material but by the want of proper disinfection of the skin before the operation. This is shown by the fact that in sections where the suturing is through and through, an abscess may show itself in the skin and subcutaneous tissue and yet the peritoneum is not infected. If it were due to the suture material we would most assuredly have a peritoneal infection also.

Attempts should be made to sterilize the skin for as long a time as possible before the operation, by scrubbing with green soap, the use of alcohol, using green soap poultices and bichloride towels. Even a few hours under a green soap poultice will render, in part, the skin free from germs. I think another source of local skin infection is the tendency many family physicians have of looking under the dressings every few hours to see "how the wound looks," or possibly changing the dressing every day as they were taught in school in the days of laudable pus. The bulky dressings are put on in part to prevent infection and growth of bacteria in the incision and suture punctures, and the frequent raising of these dressing by those interested no doubt in the patient's welfare, but not thoroughly informed as to surgery, is very injudicious to say the least. If the cotton stopper of a sterile test tube is removed twice a day for several days, the medium contained therein is almost sure to become infected unless the greatest care is taken, not necessarily, however, with pathogenic organisms. We have on the skin numerous bacteria, particularly the epidermic bacillus of Welch, and the moving of the dressings destroys the scab, or nature's protection of the incision and punctures, and we make frequent inoculations from the neighboring skin.

The Surgical Treatment of Uterine Fibroids.

By H. A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital ; Surgeon-in-Charge, St. Agnes Hospital.

WHATEVER the advocates of other therapeutic measures may claim, it is, I think, clearly established that the proper treatment of fibroid tumors of the uterus is their removal by surgical means. It is true that submucous growths may be extruded through other agencies or that small subperitoneal nodules may disappear spontaneously ; but these occurrences are not the rule. Ergot and electricity stand first in the list of palliative remedies, and must be regarded only as such. At times they do positive harm when continued over a considerable period.

I operated on one case to which the electric current had been applied long and persistently by a skilled specialist, without benefit, and the adhesions were the most troublesome I ever encountered.

It is generally considered that uterine fibromas gradually shrink after the menopause and cease to annoy the sufferers. Those who indulge this hope will often be disappointed. In many cases the growth takes on more activity at the climacteric, and in a young woman it is the greatest folly for her to think of waiting for this period while the pain, hemorrhage and other distressing symptoms continue.

Just as in other surgical conditions, the question of "when to operate" in uterine fibroids is important. The very small neoplasms which are discovered accidentally, may be allowed to remain under watchful care. Those patients

who come into the surgeon's hands for relief can without hesitation usually be advised to be operated upon, for the condition then has made itself felt. In general, a good rule is to counsel operation on every tumor that gives symptoms, which expression includes the recognition of the growth by the patient. Whether the classic symptoms are present or not, if the tumor is large enough to be noticed by the woman, it should be removed. Pressure symptoms alone are a sufficient indication, especially when it is remembered that fibroids tend to increase in size slowly but surely. Patients may be so exsanguinated or weakened from various causes that the operation may be contraindicated temporarily or permanently.

The choice of operative methods must be varied to suit the individual case. Hysterectomy is the operation most generally performed, for it is applicable to every kind of fibroid tumor and forever removes the offending organ. Whether the entire womb is taken away (panhysterectomy) or the cervix left behind (supra-vaginal hysterectomy) depends upon the nature of the tumor and the fancy of the operator. Personally, I have preferred the supra-vaginal amputation, with accurate stitching of the peritoneal flaps over the stump so as to leave no raw surface in the pelvis. I do not at all subscribe to the theory advanced by opponents of this operation, that the cervix remaining invites the development of carcinoma. Women who have fibroids are usually sterile—the very opposite condition, as a rule, from those who have cancer of the uterus. Myomectomy, or removal of a fibroid tumor without taking away the uterus, is always to be practiced whenever feasible.

Single subserous tumors with a pedicle and single interstitial growths are most frequently suitable for this operation. H. A. Kelly has enthusiastically advocated myomectomy on the ground of conservatism in cases where other surgeons would undoubtedly have performed hysterectomy. He has enucleated as many as twelve myomata from a single uterus, each by a separate incision. Penrose regards myomectomy as a dangerous operation, not so safe as hysterectomy, and considers the cases unusual in which myomectomy is to be recommended. Very recently S. C. Gordon (*Philadelphia Medical Journal*, August 19, 1899) has taken issue with Kelly, analyzing the latter's statistics, and concludes that myomectomy has a mortality as large as hysterectomy, that hysterectomy is often demanded subsequently in women who have had myomectomy performed, that only in comparatively young women should myomectomy be done, and that hysterectomy is by far more conservative of health than myomectomy.

The published report of my first three years' surgical work, ending August, 1898, included three celiotomies for fibroma of the uterus, with two deaths. Since that time I have operated with successful results upon four other cases, making a total of seven. To complete the record, a synopsis of these four cases is given. All the patients were colored women :

1. Celestia Y., cook, age 29, single. Menses always profuse, but regular—only one "flooding spell." Suffers constantly with pain in abdomen, and is unable to do her work. Has noticed a mass in abdominal cavity for

several months. A large fibroid of the uterus, interstitial and subserous. *Operation*: Supra-vaginal hysterectomy, Sept. 29, '98. Six-inch abdominal incision. Omental adhesions separated and tied. Adhesions to transverse and descending colon and to sigmoid peeled off—oozing moderate. Right ovarian and uterine arteries tied, cervix grasped with clamps and cut across to opposite side where left uterine and ovarian arteries were ligated. Bladder separated, posterior flap of peritoneum dissected off and tumor removed. Cervical canal closed and peritoneum stitched over stump with catgut. Slight raw surface on sigmoid could not be completely covered. Usual toilet of peritoneum. No signs of shock and no bad symptoms. The woman is perfectly well.

2. Mary B., teacher, age 30, single. Referred by Dr. J. A. Lightner. Usually healthy. Menses began at 16 years, and were normal up to two years ago, when they became profuse and painful, gradually getting worse. A week before admission had a severe hemorrhage. Palpitation of heart, constipation, anemia. No appreciable enlargement of abdomen to her knowledge. Hard nodular tumor manifest on abdominal palpation; diagnosis confirmed by the vaginal touch. *Operation*: Supra-vaginal hysterectomy, Nov. 7, '98. Six-inch incision. No adhesions, tumor easily delivered. Anterior and posterior peritoneal flaps dissected off. Left ovarian and uterine arteries tied separately, cervix amputated and vessels on right side tied from below upward as before. Peritoneum brought together perfectly over stump with running catgut. No raw surface exposed. Very little blood lost. No weakness, no thirst, and extremely little pain after operation. Patient returned to the schoolroom on Jan. 1st, '99, and has been attending to her duties regularly.

3. Caroline N., house-wife, age about 36, married nine years, no children. Generally robust. Menses have always been regular, but very free the last two periods. Abdomen enlarged; she thinks, "something is growing in there." Pressure symptoms marked. On her shoulder were some "knots," which came three months before. Had one on knee, which ulcerated a year ago and healed under treatment. Examination showed these nodules also over the lower abdomen in median line. They appeared to be gummata, and after careful inquiry a syphilitic history was definitely made out. A fibroid tumor of the uterus was found by examining the abdomen. She was put on large increasing doses of potassium iodide, going up above 400 grains per day, and occasional inunctions of mercurial ointment over the nodular growths. These promptly disappeared. She was then ready for *operation*: Supra-vaginal hysterectomy, Feb. 22, '99. Seven-inch incision. Intestines adherent to anterior abdominal wall. Bands of fibrous adhesions to tumor, which was an interstitial fibroid, tightly fixed and growing between layers of broad ligament. Right ovary and tube atrophied; left ovary large as a lemon, hematomatous and cystic; tube thickened. All these removed. Arteries secured as before, but right uterine not severed—tumor shelled out of its bed on that side above the artery. Peritoneum closed over stump with fine silk sutures—no reliable catgut at hand. This patient recovered nicely and is still in perfect health.

4. Laura C., house-wife, age 42. Twice married, no children; menses always regular and painless. They ceased three years ago. For several years her abdomen has been enlarged. Since menopause the enlargement has seemed to increase and she has had more trouble from pressure. No pain, no hemorrhages, no constipation. General health good. Examination revealed a large sub-peritoneal myoma, extending above umbilicus, freely

movable. *Operation:* Myomectomy, August 4, '99. Seven-inch incision. No adhesions. Tumor readily everted after incision was prolonged. Pedicle one inch in diameter, growing from fundus, double-ligatured with strong silk and cut off as close as possible to uterus. Weight of tumor 12 pounds. Patient has just returned to her home in fine condition.

323 W. Morgan St.

Shall a Woman With Posterior Dislocation of the Uterus be Doomed to Wear a Pessary for the Remainder of Her Existence?

By AUGUSTIN H. GOELET, M. D.

Professor of Gynecology in the New York School of Clinical Medicine, Etc.

POSTERIOR dislocations of the uterus that have become chronic are seldom or never cured without some operative procedure to afford permanent support. This is particularly true of retroflexions that are not recent, chiefly because the organic change that has taken place in the wall of the organ at the point of flexion, makes it more or less permanent, and it is often impossible to maintain a normal anterior position of the uterus by any form of artificial support in the vagina. Retroversions, however, that owe their existence to increased weight of the uterus, due to endometritis and metritis are sometimes curable with the aid of the pessary if the metritis and endometritis are overcome by appropriate treatment, because the cause of the malposition may thus be removed and because the pessary can, in such cases, more readily support the organ in a normal anterior position. But a cure is not always possible and frequently the pessary must be worn constantly to keep the uterus in anything like a normal position. This is true, because the sustaining ligaments have lost their tonicity and are incapable of retraction. In such cases the patient must either wear the pessary continually or submit to an operation to furnish permanent support.

Recent displacements where the tonicity of the sustaining ligaments has not been lost are curable without operation, but the support afforded by a properly adjusted pessary in the vagina is always necessary to prevent recurrence of the displacement and avoid strain upon the ligaments while undergoing retraction.

It is folly to replace a dislocated uterus and expect it to remain so unaided. Yet this is done by men who attempt gynecology without understanding it. I have known anæsthesia to be employed to effect replacement, the patient being deluded in the belief that the operation (?) that was done cured the displacement. Being naturally averse to local treatment she has contented herself by attributing subsequent symptoms to weakness, and a recurrence of the displacement is not discovered until too late to be remedied without an operation to afford permanent support.

It is likewise a grave error to insert a pessary and expect it to effect a cure without overcoming the maintaining cause of the displacement. Such practice is the outgrowth partly of ignorance of a definite understanding of

the subject, partly because some men oppose operative interference in what they are pleased to regard a very simple condition and partly because the operations devised for the cure of these displacements have not heretofore proven entirely satisfactory or successful. Consequently patients have been doomed to wear a pessary continually, or else the malposition has been left uncorrected until, some inflammatory process supervening, the uterus has become permanently fixed in its unnatural position, requiring a more serious operation than would have been necessary had the case received proper attention before fixation occurred.

It is most unfortunate that there is not more uniformity of opinion upon the proper course to be pursued when these displacements are discovered. Scores of women in consequence go through life suffering unnecessarily, either because of a pessary, for the need of a pessary, or for the need of an operation that will do what the pessary cannot.

Though sometimes serviceable and even necessary, the pessary should never be regarded as anything more than an auxilliary, a mere temporary, and often very inefficient splint. It should never be regarded as a means of cure unaided. At best, it is only a makeshift, and it is unnatural, unclean, often uncomfortable, and sometimes positively injurious. It is only permissible when its principle and its adaptation is clearly understood. It is a serious error to permit a patient with a pessary, even if it is properly adjusted, to pass from observation, or to permit her to wear it indefinitely or continually, or lead her to believe that it will effect a cure.

The utility of shortening the round ligaments in those cases where their tonicity is entirely lost and they are no longer capable of retraction, has long since been demonstrated, and is now an accepted fact. The many objectionable features of the original Alexander operation for this purpose, which was so unsatisfactory, have been overcome by modification and perfected operative technique, and we have to-day an operation easy of execution and uniformly satisfactory in its result. The risk incurred is so trifling that there is no longer any justification for ever temporizing in these cases, and no woman should be permitted to pass her existence with a pessary in the vagina because the uterus will not remain in proper position without its support.

The chief points of advantage of the perfected operation for shortening the round ligaments as devised by Kellog, are :

1. The operation can be quickly executed and is easy of accomplishment.
2. Only an inch incision through the integument is required. This is made over the internal ring, and only a quarter of an inch incision is made in the muscular roof of the canal through which the ligament is reached and withdrawn.
3. The inguinal canal is not laid open, and the operation leaves no weakness in the abdominal wall and no liability to hernia.
4. The ligaments can always be found and are strong enough at this point to permit traction upon the uterus and sustain it.

5. The ligaments are not cut or detached from their insertion.
6. The method of attaching the redundant loop of the ligament by burying it in the muscular wall of the abdomen, provides ample nutrition, the attachment is firm and it does not give way.
7. The subsequent traction by the weight of the uterus it sustains is not in a straight line from the point of fresh attachment of the ligament but at a right-angle as it passes through the muscular roof of the inguinal canal. Hence the resisting power of the fresh attachment is greatly increased. This is supplemented by folding the loop of the ligament across the top of the muscle at the bottom of the wound.
8. By avoiding the severing of the small blood vessels of the abdominal wall, which is poorly supplied with nutrient vessels in this region, the field of operation is not obstructed by blood; sponging and handling of the tissues is avoided, sloughing is obviated and primary union is always secured.
9. Only two sutures are required, which serve the double purpose of securing the ligament and closing the wound.
10. No disfiguring scar remains.

In brief the technique of the operation is as follows, viz: An incision is made through the integument only an inch in length, at a point midway between the anterior superior spine of the ilium and the spine of the pubis, about an inch above Poupart's ligament. By dry dissection with the aid of blunt hooks and retractors, the vessels are pushed aside and the external oblique muscle is exposed. The lower border of the incision is retracted sufficiently to expose the upper border of Poupart's ligament, and with a narrow bladed scalpel or bistoury the roof of the inguinal canal is penetrated in the direction of the fibres of the muscles about two lines above Poupart's ligament. Through this incision the round ligament is caught with a blunt hook and withdrawn. As the ligament is drawn through the internal abdominal ring the accompanying pouch of peritoneum is stripped back and finally opened all around to permit the ligament to be drawn freely through the ring. Sufficient slack is taken up in the ligament to draw the fundus of the uterus well forward against the bladder. The first suture is now inserted, through the integument and underlying fat, then through the margins of the incision in the muscular roof of the inguinal canal and the thicker portion of the ligament loop as it passes through this incision, then out through the integument below. This suture secures the ligament and prevents retraction into the abdomen. It is not necessary and not best to tie this until the second suture has been introduced. The material used is silk-worm gut for both sutures, and they are introduced with a stout, long quarter-curved needle.

A passage is now made for the loop of the ligament under and through the external oblique muscle above the line of the inguinal canal with a right angled aneurism needle carrying a loop of stout silk ligature, with the aid of which the loop of the ligament is drawn through. The redundant loop of the ligament is now folded across the bottom of the incision at right-angle to the inguinal canal and the second suture is inserted. This penetrates the

integument and underlying fat above, passes through the loop of the ligament as it emerges from under the external oblique muscle above, then passes through both margins of the incision in the muscular roof of the inguinal canal at the lower angle, then through the end of the loop as folded across the base of the wound and out through the integument below. The wound is then flushed with normal salt solution.

If the course of these two sutures can be comprehended from this description it will be seen that when they are tied they effectually secure the ligament loop, bring together firmly the margins of the opening in the muscular wall of the inguinal canal and, at the same time, close the incision in the integument.

The operation can be accomplished without the loss of a drop of blood, and can be completed on both sides in from fifteen to twenty minutes from start to finish.

The success of the operation necessarily depends largely upon the experience and dexterity of the operator, and consequently its adaptation to appropriate cases, as well as to careful preparatory treatment.

The scope of this article does not embrace posterior dislocations that have become permanently fixed by adhesions or are complicated by adherent or diseased adnexa. Such cases are to be dealt with through an abdominal incision. The adhesions being separated and hopelessly diseased structures removed, the uterus is attached to the anterior abdominal wall by the method recommended by Howard Kelly. A pessary should never be used in these cases prior to operation and it is never needed after.

Appendicitis.—Personal Experiences in Randolph—Fourteen Operations on Twelve Persons—And Without a Death.

By J. W. LONG, M. D., Salisbury, N. C.

Emeritus Professor of Gynecology and Pediatrics in the Medical College of Virginia.

THE experiences herein stated embrace my first operations for appendicitis, as well as some of the more recent ones. The first cases date back to the time when the subject of appendicitis as now understood was but imperfectly comprehended by even our best surgeons. Besides, the technique of abdominal surgery had not been worked out (I use this term advisedly) to the high state of perfection which is practised at this time by all up-to-date surgeons.

Public Sentiment Opposed to Surgery.—Not only were these things true, but at the time mentioned, from 1885 to 1890, surgery was not popular in Randolph, which is in many respects the banner county of the State. Indeed, so averse was public sentiment to capital operations that the doctor who would dare to take a knife and cut anybody open was considered but little better than a red-handed murderer, going about seeking whom he might slay, and utterly regardless of human life. Of course I speak now of the

general sentiment only, to which there were numerous and conspicuous exceptions.

Good Results Make Surgery Easy.—I am happy to add that this feeling of opposition to surgery has to a great extent died out, and instead there exists among the people a wholesome regard for the benefits to be derived from surgery. As nothing succeeds like success, I think it might be safely added that this reversion of public sentiment is due largely to the triumphs of surgery, as shown in the cases contained in this paper. Even public sentiment, the most formidable thing a man ever encountered, quails and gives back in the face of results.

I trust I may be pardoned for repeating what the lamented Dr. R. L. Payne said to me while on a visit to me in Richmond just prior to his death. Speaking of my early work, he said, "Long, surgery is a great deal easier to do in Randolph than it was before you went there." It was one of the most complimentary things ever said to me, and yet I do not flatter myself that its truth was because of any special personal merit on my part, but simply that it was another way of expressing the self-evident truth that *good surgery will bear good fruit*. I was merely an humble instrument, a kind of pioneer as it were, trying to save valuable lives and at the same time endeavoring to inculcate correct ideas concerning surgical pathology and a due appreciation of the immense advantages to be gained from modern surgery. Scores of other men throughout the State are doing the same thing.

Abdominal Surgery in Private Practice.—While it must be conceded that the ideal place to do abdominal surgery is in a well-appointed hospital, these cases demonstrate that it may be successfully done in the homes of the patients. In only two cases did I even have a trained nurse, and I consider a trained nurse one of the most indispensable aids to a surgical staff.

Some of these operations were done in the homes of the wealthy, where every possible convenience could be had, while others were done in the humblest homes. But country surgeons, to which class the writer claims the honor of belonging, have to make many a makeshift. I have even done a Porro operation in a negro cabin, without the patient having so much as a rise of pulse afterward. Can the hospital surgeon do any better? Truth is, that the principles of asepsis, properly applied, will give good results anywhere; and, other things being equal, the best surgeon is he who knows how to adapt himself to circumstances.

Age.—The ages of the patients in the appended cases show a wide range touching near the extremes of life; the youngest being three years and eight months, the oldest seventy-two years. The first patient I ever operated on for appendicitis was seven years old. However, the majority of the patients (*infra*) were young adults, from eighteen to thirty-five years old.

Severity.—I would not magnify the importance of this paper by declaring that the cases herein reported were all the worst kind of cases, for they were not. I mean pathologically. In every case the patient's life was in great jeopardy, and the operation demonstrated sufficient and urgent

reasons for operating. Indeed it is hard to conceive how any one can look at the puddle of stinking, fetid pus, the sloughing, gangrenous appendix, the inflamed adherent intestines, and in the severer class of cases the general septic suppurating peritonitis, with its resulting blood poisoning—and question the propriety, even the absolute necessity, of an operation to save the life of the patient—and that is just what an operation for acute appendicitis is—a *life-saving measure!*

Operation.—There is perhaps no procedure in surgery that calls for such a varied amount of skill, knowledge, experience and judgment as the operation for appendicitis and its complications. Indeed, it varies from the simple opening of an abscess to an intestinal resection. I have run the scale and know whereof I speak; and am sure every abdominal surgeon will agree with me in the above assertion.

Drainage.—In operating for chronic or recurrent appendicitis I close without drainage, but in acute cases, such as these, drainage should always be employed, for to *drain away the septic matter* is the real essence of the operation.

Anæsthesia.—General anæsthesia was employed in every case save one, and that in the oldest patient of the group (Case XI). She was in extremis. In her seventy-second year, with marked mitral lesion, prostrated by the recent loss of her husband, and for two weeks struggling in the throes of peritonitis, she was decidedly an unfavorable subject for general anæsthesia. I declined to operate except under local anæsthesia. The dear old lady displayed wonderful fortitude, and stood the operation splendidly.

Complications.—A certain number of these cases developed more or less serious complications. Two had empyæma, one had a rupture into the bladder, two had metastatic infection of the calf of the left leg, while one had a rupture through the rectum. A careful study of the history of the cases, however, will show that every case that developed a complication of any kind was operated on late; and certainly this is a strong argument in favor of early operation.

Results.—That all of these patients save one are alive to-day, speaks for itself, as far as results go. The only patient among the twelve not now living was the man Frank Hayes (Case VII). This man had had not less than *thirty-five* attacks and was in great extremis when operated on. The appendix was greatly enlarged, was mortifying in two or three places, and contained a deposit of lime salts about the size of and not unlike a peach-seed. The sepsis was profound, while the peritonitis was rapidly spreading. The patient made a good recovery from the operation, and in the usual time was going about.

Some months later it was noticed that there was an enlargement about the former site of the appendix. *Eight months and a half after the operation for appendicitis*, his family physician, Dr. W. A. Fox, asked me to operate with the view of removing this mass. The patient was emaciated, anæmic, and far from his usual health, but it was hoped that to remove the mass would restore him

fully to health. A small sinus persisted at one angle of the former incision. Under ether a median incision was made and the limitations of the tumor outlined. It was densely adherent anteriorly, posteriorly, and externally to the abdominal walls, and internally, to coils of intestines. A second incision was made directly over the tumor and the mass carefully dissected from attachments. The bleeding was profuse and unusually difficult to control. Special care was taken to guard the head of the colon, but about the time the mass was enucleated, the patient retched rather violently and a rent two inches long occurred in the caecum. This was closed at once by Lambert sutures. The patient did not react well from the anæsthetic, was more or less delirious, and the pulse frequent and feeble. The next day, he seemed slightly better, the wound was dressed and found in good condition, and the kidneys were excreting a fair amount of urine; but towards evening he grew worse, and that night (the second night after the operation) he passed away.

The occurrence of a growth after an operation for appendicitis is unique in my experience. I regret now that I did not preserve a piece of the growth in this case for microscopical examination. The rapid development, the great vascularity, the friability of the implicated gut, the widespread adhesions—all point to malignancy, probably sarcoma.

With these facts before him, would any fair-minded person say that this man died from the operation for appendicitis?

ASSISTANTS.

"No man liveth to himself," nor can any surgeon, no matter how skillful, operate without reliable and intelligent assistants. Therefore I wish to give due credit for the success attending the following operations to Dr. W. A. Woollen, Dr. D. A. Stanton, Dr. J. O. Walker, Dr. W. A. Fox, Dr. T. T. Ferree, and others who lent a helping hand.

Report of cases.—In reporting these cases I use the full name of the patient in every instance, where I can recall the name. I do this for certain personal reasons and that the cases may be easily identified.

CASE I.—Time, May, 1891, first attack, Frank Prevo's boy, age 7 years, sick eight or nine days, began with colic and soreness in bowels, right thigh flexed, has painful urination, small tender mass at McBurney's point. Lateral incision, evacuated several ounces of pus, adhesions well-formed and not disturbed, appendix not seen, drainage, recovery prompt and good.

CASE II.—Same boy, second attack, time, 1893; symptoms about the same as before, operation about the fourth day, recovery uneventful.

CASE III.—Ferdie Ingold, age 17 years; physician, Dr. W. A. Fox; time, Sept., 1891, first attack, was seized twelve hours after eating heartily of scuppernong grapes, symptoms and signs classical, operation on the eighth day, a pint of pus evacuated, the appendix could not be found, drainage, patient did well for several days, when a secondary abscess formed, and on the seventh day after operation broke into the rectum. On the next day it was deemed advisable to again open the abdomen.

CASE IV.—Same as Case III; time, eighth day after first operation; free incision, adhesions all broken down, entire abdomen carefully washed out, drainage, perfect recovery.

With my present experience I would probably do a more complete operation on both these patients and thereby avoid the necessity of a second operation.

CASE V.—Time, April, 1892; first attack; David Laughlin; physician, Dr. W. A. Fox; age, 46; operation on fourteenth day, large abscess behind the cæcum, drainage. Later, pus broke into the bladder, and metastatic infection occurred in the left calf. Perfect recovery.

CASE VI.—Miss Lizzie Gregson; physician, Dr. W. A. Woollen; time, July, 1892; former attack in June. July 12th, ate peanuts, next day she had colic, on the sixth day of the attack I operated; three gills of pus were evacuated, and the gangrenous appendix containing an apple seed and two enterolitis removed. The adhesions were very fragile and unavoidably broken down, the abdomen was thoroughly flushed out, and drainage used. The recovery was all that could be desired.

CASE VII.—Frank Hayes, age about 30 years; physician, Dr. W. A. Fox; previous attacks thirty-five; time, June, 1894; operation late in the attack, appendix greatly enlarged, with gangrenous spots in walls and containing lime deposit as large as a peach seed, rapidly spreading peritonitis, sepsis. Appendix removed, parts irrigated and gauze drainage used. There was considerable difficulty getting the bowels moved, after which the convalescence was uninterrupted.

CASE VIII.—J. E. Woollen, aged about 35 years; attending physician, Dr. W. A. Woollen; time, spring of 1895; second attack. operation about the tenth day; appendix gangrenous, but owing to adhesions was not removed. Convalescence was tedious, being prolonged by sepsis and a metastatic infection of the left calf, but in the end was perfect.

CASE IX.—E. A. Wiles, age about 27 years; physician, Dr. J. O. Walker; time, June, 1897; first attack. Operation on seventeenth day. Appendix contained pus, and one or two spots were ready to slough. Recovery prompt and perfect.

CASE X.—Sid Tate, age about 35 years, physician, Dr. W. A. Woollen; first attack; operation sometime during third week; extensive suppuration. Convalescence interrupted by empyæma, recovery perfect.

CASE XI.—Mrs. McDaniel, age 72 years; physician, Dr. T. T. Ferree; time, fall 1897; first attack; sick two weeks. Mitral regurgitations. Operation done under cocaine; extensive peritonitis; convalescence interrupted by empyæma. Recovery perfect.

CASE XII.—Negro man living with Sheriff Redding; age about 30 years; physician, Dr. T. T. Ferree; first attack; time, spring, 1898; sick nearly a week; appendix surrounded by extensive adhesions. Recovery very speedy.

CASE XIII.—Samuel Walker, age about 16 years; physician and brother, Dr. J. O. Walker; time, August, 1898; first attack; sick nearly a week; appen-

dix buried in a mass of adherent bowel, threatening spots of sloughing present. Recovery perfect.

CASE XIV.—Stanhope Bryant, Jr., age 3 years 8 months; physician, Dr. W. A. Woollen time, August, 1899; sick eighteen days with mild continued fever which dates from eating whortleberries; appendicitis symptoms present for three or four days; appendix found perforated and surrounded by coils of inflamed intestines. Recovery perfect.

SELECTED PAPER.

Shall We Operate in Every Case of Appendicitis?*

By VIRGINIUS HARRISON, A. M., M. D., Richmond, Va.

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We find in nearly every journal something on the subject of appendicitis. This is because there is no subject of more importance to us as doctors, and it is the so-called mild cases of appendicitis about which our profession differs more often in regard to the treatment. This will continue until our methods of diagnosis are perfected in regard to the severity of the conditions existing within the abdomen, enabling us to lay down exact rules for the varying cases.

Those who favor the medical or expectant treatment use various arguments for substantiating their belief, the chief of which is that the patient may recover if not operated on; if the patient gets worse rather than better within a day or two, then operate. Some advise us to wait until the attack has been recovered from, and operate in the interim. Taken as a rule, these statements may have had and did deserve some consideration a few years ago, when we had not the experience of to-day, which has so clearly demonstrated the advantage attained by an early operation.

Many have been the cases treated expectantly, and apparently with success, for the pain had subsided, the temperature and pulse had become either normal or nearly so, the rigidity of the abdominal muscles had relaxed, when suddenly symptoms of serious import arose, indicating suppurative peritonitis, or the rupture of a local abscess. Some cases are so mild, apparently, that after a few days' treatment we may doubt our diagnosis and render another, and not until a post-mortem has revealed the true condition of affairs do we appreciate how insidious the symptoms of appendicitis can be. A case of this kind has, I am told, occurred in surgical Richmond within the past two months.

Again, I have seen cases operated upon in which there was some doubt as to the existence of any serious lesion of the appendix, yet the operation taught us we had not operated too early. I recall a case in point; a young man had recurrent attacks so frequently that I advised the removal of the appendix. These attacks never kept him in bed more than one day. He never had a temperature over 100° F., nor was his pulse more than 80.

* Read before the Richmond Academy of Medicine and Surgery, August 22, 1899.

There was always some little rigidity, though very slight. Before the last attack he skated until 11 o'clock, p. m., and was taken the next morning at four o'clock with severe pain, which was promptly relieved by the action of a dose of Epsom salts. From these symptoms this surely could be classed as a mild case. I operated at one o'clock, and was much surprised to find a localized collection of pus ready to rupture and be followed by suppurative peritonitis.

I have seen all the conditions I have spoken of and many more illustrated many times over on the operating table. Nearly every operation for appendicitis impresses the fact upon me that early operation gives the patient the best chance of recovery. I honestly believe we will lose nothing by operating on every case as soon as we are sure of our diagnosis, provided there are not other diseased conditions that must engage our consideration. To use the words of Dr. Deaver: "Until the good Lord makes the belly wall transparent, it will be impossible to do other than guess as to the progress the appendiceal inflammation is making."

A few surgeons, and among them some high authorities, adhere to "the middle of the road" theory, advising that some patients be operated upon and others not; yet there are many bright luminaries in the surgical world, such as Murphy, Deaver, Treeves and others, who freely admit that they cannot tell what course any case of appendicitis will take, and advise the removal of the appendix; while the mortality should not be over 2 per cent. I envy the man who has the courage to act upon his honest convictions, provided these convictions have been made after a studious investigation of the subject.

When does the time-limit of a mild case end? or, in other words, how long should we wait before operating in case of mild symptoms? The time ends, in my opinion, when we have diagnosed the case as appendicitis. The damage is often done early in attack. The two cases already referred to teach this. I could give you the history of a good many cases to demonstrate this fact and the correctness of my opinion; but, instead, shall quote the statistics of Dr. Will J. Means of Columbus, as given at the June meeting of the American Medical Association: * * * "In nine cases operated on in the first twenty-four hours after the attack, the appendix was ruptured in five and coprolites were escaping through the openings. In the four other cases the appendix was inflamed, the mucosa showed pathologic changes, and the surrounding tissues were more or less involved. In seventeen cases operated on within forty-eight hours, the appendix was gangrenous in ten. In twenty-three cases operated on in seventy-two hours, twenty of these were gangrenous in some portion. In twenty-five cases operated on after the third day, there were abscesses in twenty. What do we learn from these statistics? Surely, it is the lesson that the earlier we operate the less grave will be the conditions with which we will have to deal, and therefore the lowest rate of mortality will be had in the early operations." If the statistics given by Dr. Means were unique we might stop and meditate as to their value, but when we find that his experience coincides with the experience of nearly

all of those who operate daily, and who have the opportunity of verifying their statements over and over again, we must accept their statements as true, and act accordingly, until some light hitherto withheld has illuminated the abdomen and directed us correctly as to which cases will go on to complete resolution and which will hasten on from bad to worse with a fatal termination.

While we are still in the dark as to the ultimate outcome of any case, does it not seem more reasonable and better to open a few bellies in one hundred cases that do not require it, and have all or practically all, of the cases to get well, than to wait until the appendix has become perforated, or gangrenous, and involving all the surrounding tissues? This latter condition will entail a far more serious operation and be attended with a corresponding higher rate of mortality.

Doubtless patients have had attacks of appendicitis, recovered and never had a return of the attack. We all know that this is the exception, and not the rule. If these cases were labeled so that we could recognize them, there would be no diversity of opinion as to the treatment. As a rule, one attack is followed by another, sooner or later. We do not know that the attack supposed to have been the primary attack was in reality the primary attack at all; the patient may have had several and have been treated for some other abdominal trouble. The symptoms are no criterion in determining the amount of damage done within the abdominal walls. I have seen a flat abdomen, a normal temperature and pulse accompanying pus in the abdomen.

I wish to speak briefly of two other classes of appendicitis, viz., the acute fulminating and those cases seen after the advent of suppurative peritonitis. No one will, I suppose, take issue with me when I say all cases of the acute fulminating variety should be operated upon immediately. Appendicitis has become such a common disease, that this class is usually diagnosed by the family by the time we are called. They have learned the necessity of an operation in the majority of instances. The old doctrine, "too late for the early operation and too early for the late operation" has no place here. As soon as the patient can be placed in suitable surroundings to be operated upon the more chance will there be of success. Even slight delay is fraught with great danger. An hour may be sufficient for this appendiceal inflammation to do irremedial damage and place the patient beyond the pale of successful surgery.

This brings me to the consideration of a class of cases that deserves a more careful consideration as to the needs of an operation. I refer to those seen after suppurative peritonitis has set in. What shall we do with them? If we do not open the abdomen, irrigate and drain the peritoneal cavity, we know that the patient is inevitably doomed. If we operate, the large majority of the patients will die, and surgery will suffer as a consequence. These are the cases that the surgeon who is working for good statistics will avoid if possible. Is this right? Some of these cases have been saved. This being true, should it not be our duty to lend them our aid? For they are entitled

to even the small chance of saving their lives if they desire it. The statistics of the surgeon, or the effect upon future surgery, amounts to nothing to them in comparison with their own lives. Again, by operating on these cases, we shall learn more of them, and may find a better method whereby we may be able to save a great many more than can be done by the present method.

In conclusion, I shall summarize by advising in all mild cases, when there are no complications of great moment, the use of "an ounce of prevention rather than a pound of cure," by operating just as soon as the diagnosis is complete. In the fulminating variety we all agree, I have no doubt, as to the advantage to be gained by the early operation. In those cases seen late, and in which suppurative peritonitis is present, without collapse, I think the patient is entitled to the very small chance given by the operation, after he has been fully advised as to the gravity of the situation.

The Pauper Inebriate.—Certain statistics of inebriety and crime are discussed by Dr. Mason, in *Alienist and Neurologist*, July, and after general consideration of the social and legal status of the habitual drunkard he takes up the special points as to the care and treatment of inebriates: 1. Pauper inebriates, he holds, should be recognized as the wards of the State, and their care and maintenance should be provided for. 2. They should be isolated, as a distinct class, as the insane and criminals are isolated. Neither the asylum nor the prison is the proper place for them. They should be sequestered by law for a long term, at least two or three years, and the directors of the institution should have the privilege of giving tickets of leave or parole, as in the insane asylums. The asylum or place of restraint should be a strictly remedial and reformatory institution, with large tracts of land and means for educating the inmates in various manual trades and occupations. The clerk or bookkeeper who has become an inebriate will find, as a rule, serious difficulty in regaining work, but if he has learned a trade comparatively few questions will be asked. The inmates should be graded and classed. Dr. Mason thinks that well-established State institutions for the care of such inebriates would greatly decrease the number of insane annually treated in the State institutions.

Alcohol as an Antidote for Carbolic Acid.—Occasional reports of carbolic acid poisoning, which appeared in recent issues of the current medical press remind us of the success achieved by Phelps in antidoting carbolic acid by the use of alcohol, says the *Med. Review*. He states that the hands may be washed with impunity in 95 per cent. carbolic acid by the use of alcohol. He has employed injections of pure carbolic acid in suppurating cavities and has then washed them out with alcohol. The procedure has not been accompanied by carbolic-acid intoxication. The method has been found to be very efficient in immediately sterilizing suppurating cavities, and many cases have been followed by a rapid absorption of the walls of the abscess and an obliteration of its cavity. The importance of the discovery in relation to accidents with carbolic acid cannot be over-estimated. The frequency of accidental poisoning with this drug has greatly increased of late years, and the accidental spilling of the contents of a bottle of strong carbolic acid over some portion of the body is by no means infrequent. The application of alcohol to these cases is said to furnish a perfect antidote. Carbolic acid, when swallowed, if followed at once by alcohol, is said to be immediately antidoted.

North Carolina Medical Journal.

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Editorial.

THE AFTER TREATMENT OF ABDOMINAL SECTION.

It is no doubt true in the majority of cases of abdominal section that the fate of the patient is decided when the last suture is placed in the abdominal wound—nevertheless the proportion of cases which are dependent upon the after-management for an increase of their chances of recovery, and for the avoidance of unpleasant sequelæ and complications, is sufficiently large to make this part of the treatment of decided interest to surgeons. The general rules which have been adopted as giving most satisfactory results are too well known to merit repetition here. Of the more pressing problems which are presented in the after-management of a celiotomy, the securing of an early and efficient action of the bowels is perhaps regarded as most important—certainly it is very significant from a prognostic standpoint. The question of whether or not to employ an anodyne for the relief of the pain, which is quite extreme in some cases during the first 24 hours, is also one which must appeal strongly to the surgeon. Since the necessity for a prompt evacuation of the intestinal canal has been recognized as a factor in the recovery of the case, the use of morphine at this stage has fallen into general disfavor, as tending to produce a paretic condition of the intestines and interfering with the action of the purgatives usually administered. There are circumstances, however, which render the ill effects of a moderate employment of opiates less to be dreaded than the exhaustion consequent upon long-continued suffering. Of the various substitutes for morphine, the use of chloral and codein by the rectum is most likely to prove effective. The temporary withdrawal of food and the subsequent use of only liquid nourishment for a stated period, together with as nearly quiescent state of the patient as it is

possible to secure, are generally looked upon as offering the most favorable opportunity for recovery of the patient. Dr. Emil Ries of Chicago, in a recent paper on this subject, proposes a radical departure from most of the above rules of treatment, and submits his own experience in evidence that the necessity of administering purgatives, of restricting the diet, and keeping the patient quiet for some time after a celiotomy, does not exist. By following a reverse plan of treatment, he claims not only to have had no ill effects, but to have derived distinct advantages, the patients being unable to leave bed and hospital much earlier, and in a stronger condition than was possible under the usual treatment. He omits the customary thorough evacuation of the intestines prior to operation, and afterwards trusts to an enema on the first or second day for securing a movement, deeming the ordinary cathartics and salines employed for this purpose, and for their supposed influence in lessening the danger of peritonitis, unnecessary if not harmful. Difficulty in moving the bowels he regards as the effect of, not in any case a cause of peritonitis. His patients are encouraged to turn over in bed immediately after the operation and many of his cases have been allowed to sit up on the third day, the majority of them by the sixth or eighth day. The food given, when the patient so desired, was meat, bread and vegetables, if after twenty-four hours peritonitis was proven not to be present by the absence of the usual symptoms, including an easy bowel action. The same course was pursued even where intestinal operation was done, and without bad result. This method of after-treatment in his hands had avoided the muscular atrophy and general debility often observed in the subjects of celiotomy, and the patients were enabled to leave the hospital and attend to their duties at the end of two or three weeks.

It is altogether possible that in the after-management of abdominal cases the precautionary measures as regards diet, lying in one position and confinement to bed, are sometimes too rigidly adhered to, but the method described by Dr. Ries, while very interesting, seems a somewhat radical correction for the occasional errors of over-carefulness, and, as has been said in the discussion of his paper, shows a possible rather than a proper method of treatment.

PROF. GIUSEPPE SANARELLI AND THE NEWSPAPERS.

The name of Sanarelli is the latest to achieve notoriety in the public mind in connection with a medical discovery, and if recent reports are trustworthy, he is the equal of Koch in seeking to extend this notoriety by means of the newspapers. A recent New York daily is said to have contained a history of the discovery of the specific cause of yellow fever, written by Prof. Sanarelli, and in addition the author proceeds to give a biographical sketch of himself and his work, in which, if one may judge from certain extracts, the Italian bacteriologist is not going to sink into obscurity from excess of modesty. He refers in a slighting manner to other investigators in the same field, especially Surgeon General Sternberg, whom he says spent

ten years of continuous but vain effort to find that which he, Sanarelli, accomplished in a fifth of the time.

Modern scientific men of the first rank seem as prone to fall a prey to modern commercialism as are any of those of lesser distinction. Koch has shown himself, notwithstanding his admittedly great services to science, possessor of a spirit of greed and jealousy which would be unbecoming in a horse-trader, he having lowered himself in the eyes of his profession by seeking to obtain a patent for his process of manufacturing antitoxin; and now the discoverer of the *bicillus icteroidies*, a young man of thirty-four years, writes a newspaper article exploiting himself and his work, so egotistical that a contemporary remarks that "it reads so much like the writings of a quack that we are loath to believe Sanarelli ever wrote it as printed." All of which proves that in spite of their success these gentlemen do not view the vast domain of undiscovered scientific problems with the humility of a Newton, their sense of proportion being doubtless congenitally deficient.

THE BUTTON OF THE AMERICAN MEDICAL ASSOCIATION.

We note that the official button of the American Medical Association is now ready to be placed on the coat lapel of each member. The button is said to be handsome in design, the chief features of which are protected by patent. The object sought in the adoption of a button is the furtherance of that spirit of unity among physicians which it is one of the principal aims of the National Association to foster. To quote from the report of the committee having this matter in charge: "We can readily see how the wearing of such means of permanent identification might be of much service in arousing a spirit of fellowship that would be helpful in bringing the members of the Association closer together. It would serve to fix attention and direct thought to the interest of the Association during the intervals between the annual meetings, and would prove suggestive of matters pertaining to its growth and development."

The device upon the button is suggestive and appropriate, and the price one dollar.

Treatment of Eclampsia.—During the attack itself, administer chloroform. As soon as the attack passes off give hypodermically fifteen drops of the fluid extract of *veratrum viride*, and a drachm of chloral in solution by enema. Place upon the tongue two drops of croton oil diluted with a little sweet oil. Induce diaphoresis by hot packs and extra bedclothing. Inject by gravity under the breast a pint or more of decinormal salt solution, or several quarts of the solution by enema. If convulsions recur, repeat the *veratrum* in five-drop doses if the pulse is quick and strong. If the face is congested and the pulse full, employ venesection enough to reduce the pulse. The chloral may be repeated during the attack two or three times. Use stimulants if the pulse is weak and rapid. If the convulsions cease and the patient is in a stupor, but can be aroused enough to swallow, give dessert-spoonfuls of concentrated solution of Epsom salts every fifteen or thirty minutes until free catharsis takes place. These condensed directions should be carried in the pocket case of every obstetrician.

—DR. BARTON C. HIRST.

Medical News and Items.

The Four Kinds.—"Yes, that's Dr. Bloggs."

"Allopath, homeopath, horse or divinity?"—*Indianapolis Journal*.

It is pathetically announced that the most digestible part of the dough-nut is the hole in the center.

Dr. Charles A. Julian, of Thomasville, N. C., a young physician of talent, will leave the "Old North State" to locate in Ohio.

One of the Newspapers recently announced that a physician had certified that a man had died of opisthotonos, which it described as "a first cousin to tetanus."

Someone has cleverly estimated that the quantity of beer consumed in a single year throughout the world would make a lake six feet deep, a whole mile wide, and three and three-quarters miles long.

Dr. Joseph B. Haven, of Chicago, has been appointed consul to St. Kitt's Island, W. I. Dr. Haven was graduated from Rush College, in 1880, and had built up a good practice. He left for his new field September 1.

The Southwest Medical Record of Houston, of Texas, says that a country doctor of that State wired Dr. D. F. Stuart of Houston to ship a mad stone at once. The latter answered by asking, "To what stone do you refer? I am not aware that any had gone mad."

Prof. William F. Smith has resigned the chair of anatomy in the College of Physicians and Surgeons, Baltimore, on account of ill health. Dr. Isaac R. Trimble has been elected to fill the vacancy. For some years Dr. Trimble has held the chair of anatomy and clinical surgery at the Woman's Medical College.

Treatment of Constipation.—Each evening, before retiring, an injection of plain water is to be taken and retained. The size of the injection is gradually increased from 8 oz., the beginning amount, to 24 oz., and the temperature of the water is gradually lowered until 68 degrees F. is reached. The duration of the treatment is from four to six weeks.—*La Semaine Med.*

Suprarenal Gland in Chloroform Accidents.—In the *Revue de Therap. Medico-Chir.*, we are told that Minkowsky has repeated the experiments of Biede and of Gottlieb, and has found that the use of suprarenal gland in the lower animals, does much toward preventing accidents during the administration of chloroform, probably through its powerful influence on the vascular system.—*Therap. Gazette*.

Yellow Fever.—A few days ago cases were reported in Key West and in New Orleans. The disease is not of a virulent type, but is spreading rapidly in Key West. In New Orleans and Mississippi towns in which the disease has appeared, the authorities have been able to prevent the disease becoming general. In Key West the total number of cases is 362, with 18 deaths. In New Orleans there have been 10 cases since May 1st, with 2 deaths.

The Nebraska Way of Lynching.—They do things scientifically out in Falls City, Neb. A man there on August 22d, criminally assaulted a little girl, and was quickly arrested and placed in jail; not, however, before a

crowd of would-be avengers had tried and failed to get the prisoner away from the officers. Along in the small hours of the morning, several hundred men got together, marched to the jail, broke in the doors, and one of the number—"perhaps a physician," the newspapers have it—"performed a surgical operation which will prevent the prisoner from committing any more such crimes."—*Journal of the American Medical Association.*

Appendicitis.—However light the clinical expression of appendicitis may be, and however much it may appear to be in favor of a speedy temporary recovery, the operation is always justifiable. As the strength of the infection can never be known with certainty from the beginning, it appears to be wiser to take each appendicitis seriously. Among two evils the smaller should be chosen, and the operation is the smaller evil.—*Carl Beck.*

A curious fact is reported by the *Medical Press and Circular* in regard to the assault on M. Labori, Dreyfus's counsel. He was in charge of Dr. R  clus, a distinguished French surgeon, who was called by the family. Among those who shared in the excitement on the night of the attempted assassination was M. Doyen, another prominent French surgeon, who immediately seized his instruments and took the next train for Rennes and succeeded in obtaining an interview with the patient, which, it is said, was not allowed to take a professional turn, though in taking leave "he placed himself at the patient's disposal." The action has stirred up an ethical controversy in which, it is said, Dr. R  clus very emphatically expressed his opinion.

A Post-Mortem Pulse.—Dr. H. A. Huntington, of Kingston, Jamaica, offers the suggestion of an artificial pulse to enable students to perform surgical operations on the cadaver under more nearly natural conditions. He writes: "Instead of injecting the arteries as at present, attach a rubber tube to a pump whose force and strokes shall be such as to send a red antiseptic fluid into the arteries of the cadaver, imitating as nearly as possible the conditions in life. Students can then perform all sorts of surgical operations under far more interesting and instructive conditions than on the dead cadaver. Using a gas engine or electric motor with suitable pipes and tubes, every dissecting table can have its 'pulse' ready to 'turn on' to the cadaver."—*Med. Record.*

Medical Students Accused of Practicing Fraud.—*The Philadelphia Press*, in its issue of September 3, contains an accusation which if proved to be true, will react very unfavorably on the candidates who recently passed the examination prescribed by the Board of Medical Examiners of Pennsylvania. This paper charges on information furnished it that the students of at least two of the medical colleges of Philadelphia had been provided with all the questions asked by the Board, previous to the examinations. It is not definitely known as to how the questions were obtained, but the idea is hinted at that the sum of \$500 was placed in the hands of the printer at Harrisburg, and that the questions were then transferred to probably one of the students, representing a clique, to be subsequently sold to the candidates intending to present themselves before the State Board of Medical Examiners. It is charged further that these questions were circulated widely. A recent graduate in medicine—whose name is not given—stated that papers containing the whole set of questions were offered him for \$2.50.—*Journal American Medical Association.*

Another victory was scored by the Illinois State Board of Health, August 17, when Joseph Skalla, 571 West Eighteenth Street, Chicago, was fined \$100 and costs for violating the medical practice act. The prosecution charged Skalla with making and selling medicinal remedies and treating the sick in violation of the State law. It also showed that Skalla was not a regularly licensed physician, and on this testimony the justice imposed the regulation fine for the first offense. The case was not appealed.

Transactions of the Medical Society of the State of North Carolina.—A copy of the Transactions of the Asheville meeting has been received. The volume contains over two hundred and fifty pages, well printed on extra laid paper, and is handsomely bound. In appearance, accuracy and arrangement the Transactions this year compare favorably with those of any Society North or West. We feel proud of the evident progress we are making. We would feel remiss in our duty if we did not recognize the ability Dr. Pressly, the Secretary, has manifested in getting out these Transactions. Only two months since the Society met, and here are our Transactions handsomely and accurately prepared, and at a cost surprisingly small; especially if compared with the prices the Society has formerly paid.—*Charlotte Med. Journal.*

Another State "Wheeling Into Line."—The State Board of Health of Kentucky has given notice that it will hereafter refuse to recognize as a basis for certificates to practise medicine, diplomas from any medical college which does not in good faith comply with the requirements of the American Medical College Association, the American Institute of Homeopathy, and the American Eclectic Medical College Association, respectively, both as to preliminary education and four years' course of study. This means that no school that graduates three-year students will be recognized in Kentucky hereafter. The Board provided an examination for three-year graduates of the present year, as many of the students had attended such schools in ignorance of its advanced requirements, but found this course unsatisfactory, a large percentage of the examinations indicating incomplete preliminary education as well as imperfect medical training. This standard for the State of Kentucky was made and promulgated in 1891, to take effect the present year, but is again published that schools patronized by Kentucky students and future graduates, expecting to practice in the State, may fully understand the requirement of the Board.—*Medical News.*

Why He Had Three Lanterns.—The following story, which appears in a Greek journal published in Cyprus, has been sent to us: A embarrassing law in China forces every physician to hang out at his door at night as many lighted lanterns as he has sent unfortunate ones into the other world. One evening a European, a business man living in Peking, went out to summon a physician to attend his wife, who had been taken sick suddenly. He passed many physicians' houses, but feared to enter any of these because they all had a large number of lanterns. Finally he came to one where only three lanterns cast their melancholic shine over the entrance. Our European thought himself fortunate, entered the house of this wise disciple of Æsculapius, awoke him, and took him to his own house. While the two were walking along the merchant said, "I presume you are the best physician in this city?" "What makes you think so, sir?" "Because you have only three lanterns at your door, while all your colleagues have dozens of them." "Ah, this is the reason," answered calmly our unsophisticated Æsculapius: "the truth is that only the day before yesterday I hung out my sign for the first time, and as yet I have only been called to attend three patients."

A German doctor now residing in Buffalo, Dr. Max Breuer, has recently been decorated with the cross of the Legion of Honor by the French Government, says *Prog. Med.*, August 5. It seems that a young French sailor on an oil ship from Rouen to Philadelphia had his arm crushed and gangrene appeared, with no medical assistance on board. An English ship passed without paying attention to the signal of distress the captain raised, but the *Russia* of the Hamburg line, hove to, although forbidden to approach within a certain distance of an oil ship. To the signal for a surgeon, the *Russia's* medical officer, Dr. Breuer, 28 years of age, responded with eight volunteers to man the boat in the heavy sea, amputated the arm and saved the sailor. When offered money for his services he replied: "The danger my men and I are facing at this moment can not be paid with money."

Blood-washing Treatment of Syphilis.—Dr. Harvey P. Jack (*Journal Alumni Association*, College Physicians and Surgeons, Baltimore, July, 1899, Vol. II. No. 2) has originated what he terms the blood-washing treatment of malignant syphilis. His method consists in the withdrawal of from one-half to one pint of blood from the arm by the usual method at intervals of one or two weeks, being replaced at once by injecting under nipples, twice the quantity removed of a hot normal salt solution, in which solution was placed a sufficient quantity of mercury bichlorid to make a solution of the strength of 1-25000. He recommends that the patient be kept in bed for three days after the treatment and kept on a milk diet. He repeated his plan of treatment six times in three cases. One case was a very malignant one, his septum nasi was gone, he had localized paralysis, ulcerations on the shin bones and peristitis. The other two cases were those of recent syphilis. The result has been all that could be desired in all cases. After the blood-washing the cases were put upon appropriate treatment—mixed treatment for the late case, and pratioiodid or biniodid for the early ones. R. L. F.

The Preventive Action of Chloroform Water Against Post-anæsthetic Accidents.—M. Weber (*Journal des praticiens*, May 6th), as a consequence of observations on a patient who had been submitted to chloroform medication by internal administration, and who was subsequently submitted to operation, recommends that for some weeks the patient to be operated on should, if possible, be placed upon the following mixture:

R Chloroform water	3,000 grains.
Tincture of badiane (<i>Illicium anisatum</i>) or essence of mint	} of each, 4 drops.
Tincture of anise,	

M. Filter after twelve hours.

Subsequently to his first accidental observation, M. Weber has experimented upon many patients and finds that this treatment, when practicable, prevents the supervention of the unpleasant accidents attendant ordinarily on the administration of chloroform.—*N. Y. Med. Jour.*

Dr. Arendt calls attention to a new method of controlling post-partum hemorrhage. He seizes the cervix with a bullet or volsellum forceps and draws it down to the vulva. This kinks the afferent vessels, and so stops or lessens the flow of blood through them. Uterine action is excited by alternate traction and relaxation. He believes that tamponing of the uterus is effective mainly because of the incidental pulling down of the uterus.—*Therapeut. Monats.*, Vol. XII. No. 1.

Chancroid.—After thorough cleansing, the sore should be *lightly* dusted over with nosophen. Applications of this powder need not be made oftener than every second day. Improvement will be apparent after the first application.—*The Med. Fort.*

Review of Medical and Surgical Progress.

An Epitome of Surgical Progress.

By JOHN H. GIBBON, M. D., Philadelphia, Pa.

Operations in Gastric Ulcer.—By Leonard A. Bidwell, F. R. C. S., England (*American Journal of Medical Sciences* for September, '99).—First operation for perforating gastric ulcer was done in 1881, since when several hundred such operations have been reported. The operation may be demanded because of profuse hemorrhage or because of oft-repeated slight hemorrhage. When perforation occurs it becomes at once imperative, and the author also recommends it for cases resisting the ordinary medical treatment, especially when dilatation of the stomach exists as a result of cicatricial stenosis of the pyloric opening. In 90 reported cases the perforation occurred in anterior wall 64 times, in posterior wall 16 times, at lesser curvature 6 times, at pylorus 3 times, and in one case both walls were affected. The symptoms of perforation are given as follows: History of treatment for gastric ulcer with hæmatemesis, sudden pain, shock, rigidity of abdominal muscles with a tender spot over the stomach, lessened or absent liver dullness, and the presence of free fluid in the peritoneal cavity. The symptoms of perforation of posterior wall are more obscure. Great stress is laid upon the necessity of an early diagnosis and prompt operation, "since the prognosis after operation is directly dependent upon the length of time which has elapsed between the occurrence of perforation and the operation." In 25 successful cases in which time was given, the operation was done within six hours of perforation in 8 cases, between six and twelve hours in 5 cases, between twelve and twenty-four hours in 7 cases, at an interval longer than twenty-four hours in 5 cases. In 17 fatal cases, in which time was given, none were operated on within twelve hours, 7 were done within twenty-four hours, 6 within forty-eight hours and 4 at an interval exceeding forty-eight hours. No better proof of the advantage of early operation could be desired than this given by the author.

He advises against any attempt at excision of the ulcer, and uses either the Halsted or Lempert suture, keeping at considerable distance from the edges of the ulcer. He irrigates thoroughly every part of the peritoneal cavity with salt solution, being careful to go well over the upper surface of the liver, and drains freely with rubber tube and gauze through incision made above the umbilicus, and sometimes makes another opening below and passes a drainage tube into Douglas's pouch. Feeding after the operation should be by the rectum for three or four days.

The author speaks of the formation of adhesion, before perforation, and rupture into the colon, pericardium or small intestine, and the occurrence of subphrenic abscess. A mistake in diagnosis is also warned against, particularly that of taking a case of severe colic for perforation, as has been done.

The mortality in the 55 cases of perforation collected by the author and operated upon during the past year, was 40 per cent. Other statisticians place the mortality higher.

In operations for hemorrhage the author has found the mortality higher, but this he attributes to the fact that more radical measures were resorted to, such as complete excision of ulcer, anastomosis, etc.

Report of a Case of Resection of the Liver for the Removal of a Neoplasm, With a Table of 76 Cases of Resection of the Liver for Hepatic Tumors.—By W. W. Keen, M. D., of Philadelphia (*Annals of Surgery* for

Sept. '99).—This report is the author's third of resection of the liver for a tumor, all recovering. The present case was that of a man 50 years of age, suffering with a carcinoma of left lobe, which had first given rise to symptoms three months previously, during which time the patient had lost 30 pounds in weight.

On opening the abdomen the left lobe came readily into view and was enlarged and nodular, the rest of the liver was smooth and not enlarged, and the lymphatics were not found to be involved. The left lobe was then excised, the operation being accomplished entirely with the Paquelin cautery, the neighboring parts being protected by wet gauze pads. The bleeding was not very severe, excepting upon the division of the large veins, but these were easily ligated. In anticipation of profuse hemorrhage the patient had an intravenous injection of a quart of salt solution. The edges of the remaining raw surface were brought as nearly together as was possible by catgut sutures, and to provide against hemorrhage, the flow of bile, and subsequent adhesion of neighboring parts, a strip of iodoform gauze was packed over the exposed area and allowed to protrude through the abdominal incision; this was removed at the end of forty-eight hours. The patient's recovery was uninterrupted, except for considerable irritation of the stomach during first two days, which was then relieved by washing out the stomach. There was considerable discharge of bile for some days, but this gradually decreased and finally disappeared. The diagnosis of carcinoma was corroborated by three pathologists, who examined sections of the growth.

In using the cautery, the author advises a slow division of the tissue, and with the cautery heated only to a dull red. He took from 20 to 30 minutes for the division in this case, including the time required for placing five catgut ligatures on veins. In 74 tabulated cases of resection of the liver for tumors, the author found 63 recoveries and 11 deaths, being a mortality of 14.9 per cent.

The Intestinal Treatment of Tuberculous Peritonitis.—By Henry T. Byford, M. D., of Chicago (*Annals of Surgery* for September, '99).—After a comparison of the mortality rates of the medical and surgical treatment of tuberculous peritonitis, in which he shows the latter to be somewhat more successful, he endeavors to explain why it is so. He, however, first suggests that many of the cases which are temporarily benefited by abdominal incision are reported as cures, whereas, if the reporter had waited a little longer he might have had a different report to make. It is undoubtedly true that these cases, particularly where there is much effusion, are strangely benefited by simple abdominal sections and that no very satisfactory explanation of this improvement has ever been offered. Byford says the improved condition is not due to the removal of fluid, for tapping does not give the same result and besides cases without fluid are also benefited by section, nor is it the exposure to air and light, as has been suggested, for quick work is more successful than slow. It is not anything that destroys bacteria, for the use of germicides does not affect the result. He denies that opening the peritoneum produces such a change in its physiological function that tubercles are destroyed, and also declines to accept the theory, that the cure is due to increased phagocytosis. "I have come to the conclusion that there is some benefit connected with abdominal incision that is not connected with tapping and the other forms of treatment, and that it is the same thing that causes improvement in almost all cases treated by abdominal section, even when pathological conditions in the peritoneal cavity are not removed or are not

even found. Thus cases of neurasthenia, hysteria, epilepsy, pelvic pain, etc., are usually temporarily benefitted by an abdominal section, although they may lose the benefit later." The author then declares his belief that the thing which causes this improvement is the preparation and after-treatment which accompanies the abdominal section, and in illustration reports a case in which he tried the usual medical treatment with no effect, then he put the patient through the usual preparation, and after-treatment of a laparotomy, with the result that the fluid was absorbed, the temperature came down and patient gained flesh and strength. He concludes by recommending the following treatment: During the first few days, when the condition is acute, the ordinary treatment of acute peritonitis, but opium must not be continued more than a day or two. Use hot fermentations or ice cap for pain. Keep stools dark green with calomel, and when the stomach will stand it give sufficient saline to produce two or three soft liquid stools a day. Diet the author lays greatest stress upon; it should be liquid and easily digested and given at regular intervals. "It is the want of strict intelligent attention to what is taken as nourishment that leads to intestinal pain, distention, nausea, increase of the peritonitis and effusion, and the necessity for an opiate." Patient must be kept absolutely in bed until the abdominal tenderness has gone and the afternoon temperature is normal, and must return to bed if pain comes back or temperature rises. Intestinal antiseptics such as salol, guaiacol or creosote, are used, and if diarrhoea occurs bismuth is given. The author depends largely upon diet and intestinal antiseptics to prevent diarrhoea.

When it is remembered that we do not know why cases of this nature when operated upon do improve, and that this improvement is so often only temporary, it would certainly seem that Dr. Byford's "Intestinal Treatment" should have a trial before resorting to abdominal section. In severe cases and those in which the fluid is not absorbed after this treatment, he recommends that operation be done.

Ninety-three Consecutive Abdominal Sections Without a Death, with Clinical and Pathological Reports.—By Hunter Rabb, M. D., of Cleveland, Ohio (*Phila. Med. Jour.*, Sept. 2nd, '99).—The author made no attempt to select these 93 cases, but operated upon them as they presented themselves. He says that he attributes his success in this series of cases more to a careful operative technique and to the preparatory and after-treatment of the patient than to the skill of the operator. The preparation of the patient, the surgeon, his assistants and the instruments, is that described in his book on "Aseptic Surgical Technique."

The catgut used is that prepared by Kiliani, and the chromicized gut of St. John Levans and Van Horn. Sponges are made of sterilized gauze. The author recommends the use of rubber gloves. All irrigation is done with normal salt solution poured directly into the cavity from glass graduates. Strips of sterilized gauze are used for drainage, no glass tube being used in past five years. Every case is irrigated with salt solution and a portion of the fluid left in the abdomen. *After-treatment.*—Keep patient in recumbent position with elevation of foot of bed. To prevent shock, strychnia is given hyperdermically and enemata of hot coffee 2 hours apart. Thirst is controlled by giving water per rectum. After first or second day, if nausea exists 5 or 10 grs. of soda bicarbonate is given in two teaspoonfuls of hot water, and repeated every hour or two, and sometimes supplemented with a mustard leaf over the epigastrium. Morphia is not given as a routine for pain and is avoided whenever possible. Bowels are opened by giving on morning after the operation 2 grs. of calomel; 8 hours later 2 oz. of glycerine

is injected high up into the rectum and followed 2 hours later by a pint of soap-suds and warm water. When necessary catheterization is done every 8 hours. Patient is usually kept on the back for the first 12 hours, when she is turned on the side for brief periods. For tympanites the rectal tube is placed in the rectum for half an hour to an hour at a time, and this the author has found very effective. Sometimes an injection of oil, turpentine and water is also given and a mustard plaster or turpentine applied over the abdomen.

In concluding, the author lays stress upon the use of rubber gloves and the irrigation with salt solution. Supplementing the article is the clinical and pathological report.

Appendicitis—When to Operate.—Richardson (*Journal American Medical Association*).—The question of operation in cases of appendicitis is growing in intensity, possibly because we are nearing the time when our data should furnish us with some pretty definite rules for guidance. Of interest in this connection is a paper read by Dr. M. H. Richardson, of Boston, before the American Medical Surgical Association.

The conclusions arrived at are the results of experience in 904 cases personally observed and treated, and of personal observation of many other cases in the practice of his hospital colleagues. He states that at the bedside, in a specific case of appendicitis, there would doubtless be little difference of opinion even among those surgeons who seem to differ materially in the expression of their views. There is a wise middle course by which unnecessary operations are avoided and necessary ones performed.

I. In the initial stage: (1) Severe symptoms of onset demand immediate intervention. These symptoms are pain, vomiting, tenderness, rigidity, shock—those common to most acute abdominal emergencies; (2) cases of mild onset may well wait until a second observation shows the probable course of the case. The most important question is not whether to operate in appendicitis, but rather when to operate. In a large percentage of acute cases recovery from the acute attack will take place, and operation can be safely performed through a small incision which will not weaken the abdominal wall. Operation must not be delayed, however, unless there are reliable signs of convalescence.

II. After the initial stage, the question becomes more difficult. When observed for the first time on the second, third, or fourth days, (1) severe cases should be operated on at once, unless they are improving so rapidly that there is a strong expectation of complete recovery and interval for operation. Intervention is still more strongly indicated if the symptoms are increasing in severity. Operation is indicated if the symptoms recur after marked improvement. After the early hours, the character and extent of pain, tenderness, and rigidity, are important as determining the width and depth of the area infected. The constitutional signs are less reliable than the local. (2) If the patient is improving with a successfully localized peritonitis of considerable extent, especially if centrally localized, as in the pelvis, let operation be postponed until intervention can be safely practiced, because these cases comprise, in the absence of general peritonitis, the most dangerous ones. The chief objection to operating in every case is the danger of converting a local into a general peritonitis.

Intervention becomes safer with a few hours or days delay in improving cases: (a) because the general exudate, so easily infected during operation, becomes absorbed; (b) because the local exudate diminishes in size; (c) because

walling off with gauze is practicable when adhesions are firm, impossible when they are thin; (d) operation at once ruptures the localized peritonitis and starts the too often fatal peritonitis. If the patient is not actually improving, this serious danger must be deliberately encountered, because the localized peritonitis will probably rupture by itself without operation. When there is a tumor situated to the right side, or directly under the abdominal wall, so that walling off with gauze is practicable, operation may be performed under conditions that would contra-indicate intervention when the tumor is centrally located or in the pelvis.—*A. T. Mann, in Medical Dial.*

Surgical Hints.—In syphilitic ulcer of the tongue, the floor of the mouth is usually not involved, so that the tongue may be moved quite freely. In epithelioma it becomes involved early with consequent loss of motion.

If a patient should happen to become salivated during mercurial treatment, do not at once give iodide, since this drug, by increasing the elimination of mercury, will at least temporarily increase the trouble.

Never remove a large sequestrum or a foreign body situated near a blood-vessel of any importance, without being ready to tie the vessel in case of hemorrhage. In one case the carotid artery had to be tied for hemorrhage resulting from the removal of a necrosed portion of the lower jaw.

In urethral stricture, complete retention may occur even when the stricture is not of a very small calibre. If any inflammation is present, a very slight spasmodic action may suffice to close the canal, and this spasm will continue, and even grow stronger, until a catheter is passed. Always begin with a fair-sized instrument.

In retro-pharyngeal abscess it used to be advised to empty the abscess first with a trocar, in order to avoid flooding the larynx with pus and causing suffocation. If we can open the abscess with a knife, while the patient's head is lower than his body, in the position adopted for feeding intubation cases, the danger is avoided and the opening will be more thoroughly done.

In severe pain in the testicle occurring in old men, if we can exclude the presence of inflammation due to the ordinary infectious conditions, inquire into the possible presence of gout. In this disease an attack occasionally begins in the testicle, and gives rise to excruciating pain. Colchicum in full doses is a specific for this. Heat is usually grateful to the patient. Cold applications are not indicated.

In cases of strangury occurring in old men, after operations upon the rectum, the condition may sometimes persist for two or more days, especially if there is any prostatic trouble or urethral stricture. This may often be cut short by leaving the catheter in for a few hours. There is no danger in this if our asepsis has been thorough. It is also important to remember that in such cases we may remove only a small part of the urine contained in the bladder. To avoid this, percuss the bladder as soon as the urine stops flowing. If we have reason to believe that any urine is left, we should turn the patient over on one side, and we will often see several ounces more gushing out quite fast.—*International Journal of Surgery, February.*

JNO. C. LEVIS, M. D., West Bridgewater, Pa., says: "I have used Celerina in my own case for insomnia. Among all the hypnotic preparations and nerve tonics, it stands justly pre-eminent. Several persons are now using it and report that no preparation has given such permanent and prompt relief. In a general practice of more than half a century, this is perhaps the first public testimony I have offered. Celerina is the very best nerve tonic now offered to the profession, and can not be too highly recommended. To those wanting a nerve stimulant, it will be just the remedy.

"A Little Nonsense Now and Then, Etc."

Young Lady's Diary.—On transatlantic steamer: Evening.—"Took three pills before retiring." Morning.—"Passed an iceberg at 7 a. m."—*St. Louis Clinique.*

His Impression.—Doctor: "My rule is, 'be sure you're right, and then go ahead.'"

Friend: "Indeed? I thought it was, 'when in doubt, performan operation.'"—*Puck.*

But No Remedy.—Doctor: "Have you taken any remedy for this trouble?"

Patient: "No, doctor, I have not; but I've taken a power of medicine."—*Harlem Life.*

Healing: "Did that stuff revive you?" asked the attending physician of his impatient patient.

"Revive me, doc? Good heavens! three doses of that medicine would resuscitate the dead languages."—*Detroit Free Press.*"

"If I Were You": The customer wanted a little drop of prussic acid, which the assistant refused. "Do I look like a man who would kill himself?" asked the customer. "I don't know, I'm sure," said the assistant; "but if I looked like you I should be tempted."—*Chemist and Druggist.*"

Infant Philosophy.—Tottie (aged 5).—I wonder why babies is always born in the night time?

Lottie (aged 7, a little wiser).—Don't you know? It's cos they wants to make sure of findin' their mothers at home.—*Harlem Life.*


Naturally.—Student.—How is it, doctor, that I always take a cold in my head?

Doctor.—It is a well-known principle, sir, that a cold is most likely to settle in the weakest part.

Common Experience.—Old Foozle: "So, my son, you have laid aside your studies and are about to enter upon the active duties of life?"

Young Foozle: "Yes, dad; but since I got my sheepskin and have had time to look around me, I am surprised to find the active duties of life so very closely attended to already."—*Boston Transcript.*

PREACHING AND PRACTICE.

When a doctor makes a visit
To a home where one lies ill,
Oft he takes heroic measures,
Here we see the size of pill: 

But when from hard work and exposure
The doctor's own health goes amiss,
And symptoms call for medication,
The doctor takes a dose like this: o.

—"*Medical World.*"

A Question of Chemistry.—Said Mickey Finn to the patrons of O'Shaughnessy's bar-room: "Me by is stiddyng fwot he calls ke-mist-ree, but Oi think it's dom humbug. He said last noit that if he tuk one bottle of oxygin, and two of hydero-gin, that thin he could make water. Oi said nothin" but Oi thought any dom fool knew that without going to a school to learn it."—*American Druggist.*

Publishers' Department.

PREVALENT DISORDERS OF THE SEASON.—The bane of child-life at the present day is stomach and bowel disorders, and the imperfect assimilation of food is the factor of various diseases which imperil health and tend to destroy life. The physician and pharmacist exert all their art and skill to combat the conditions that lead to the above complaints, as the pre-requisite for a sound body and good blood is perfect digestion. While not assuming to instruct, but simply to suggest, observation and recorded clinical experience at the bedside have abundantly confirmed the great therapeutic value of Elixir Maltopepsine (Tilden's) as a digestive ferment, its action being markedly beneficial in stomach and bowel irregularities such as acid stomach, heartburn, indigestion, summer complaint of teething children, and especially the exhaustive anæmia following protracted illness.

Where drugs are resorted to, they must be of the mildest, non-irritating kind. Elixir Maltopepsine is a delightful summer adjunct to the physician's pharmacopœia, as it is readily borne by the most intolerant stomach. In heart depression superinduced by faulty digestion and prolonged anæmia, a deservedly favorite combination will be found in the following prescription:

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A WANT FELT AND FILLED.—If the doctor had never accomplished anything more definite in his life-work than the relief of pain, than amelioration of human suffering, he would not have lived in vain. It is all very well to say that pain is physiological, that it is the cry of the nerve for more blood, yet its continuance cannot be borne by the patient, even by the most heroic Spartan. Long-continued pain is dangerous, and while of course we never wish to obtund and remove it so completely as not to be able to ascertain its cause, and remove the same, yet, the best interest of our patient requires from time to time the administration of that which is opposed to pain. Remedies like opium, which relieve the pain and at the same time are exhilarating and alluring in their effects, are oft-times most dangerous in the remote demoralization which they produce upon our patient. A remedy for the relief of pain which does not tie up the secretions, which carries with it no exaltation and no fascinations which tend in the direction of developing drug habits is a desideratum. Five-grain Antikamnia Tablets certainly meet this necessity. Antikamnia is also more prompt and decided in its action in labor than opium, and has none of the unpleasant after-effects. It may be continued in smaller doses to control after-pains, and rather favors than interferes with the secretion of milk.

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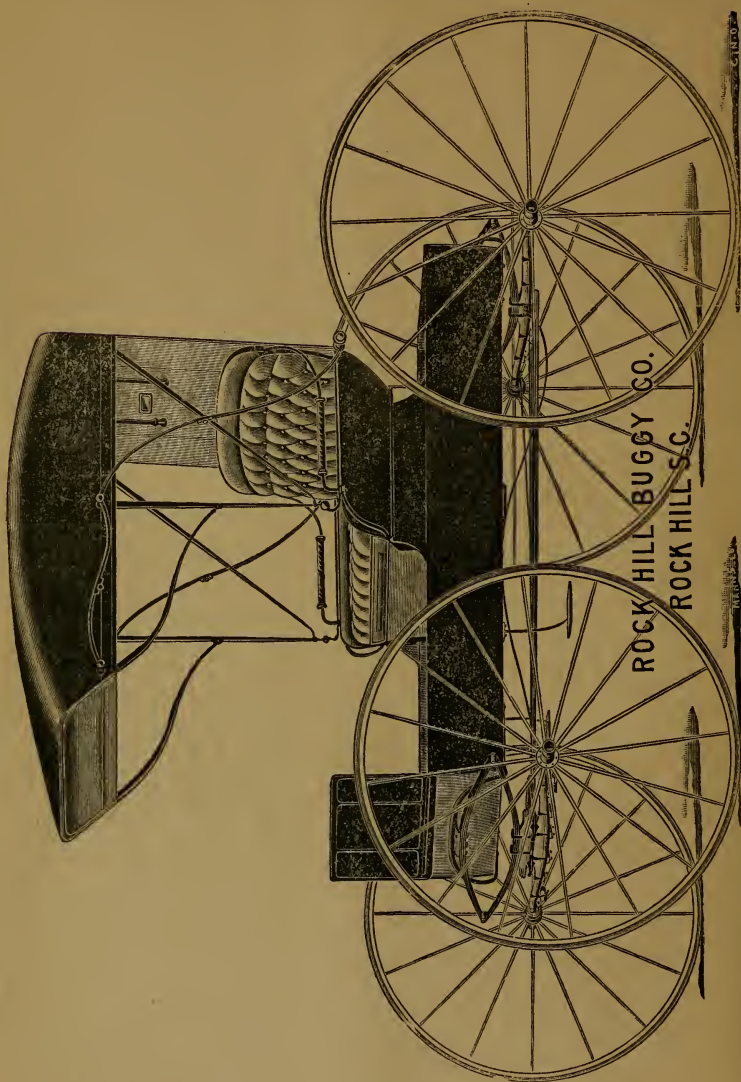
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Vol. 44, No. 7.

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A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, OCTOBER 5, 1899.

No. 7

Original Communications.

Fractures of the Skull.*

By J. GARLAND SHERRILL, A. M., M. D.

Lecturer on Surgery in the Hospital College of Medicine, Louisville, Kentucky.

IN a paper read before the Falls City Medical Society of Louisville, the author said in part:

Fractures of the skull are divided into those of the vault and those of the base. Frequently a fracture extends from the vault to the base, and such an injury proves additionally serious from its extent.

The mere fissure or solution of continuity of the bones of the calvaria does not of itself prove serious, but the damage done to the brain substance and to the intracranial vessels by the force which produces the fracture and the injury of these structures by fragments of bone, determine the gravity of a given case.

A fracture complicated, then, by injury of the contents of the calvaria is a serious affair, and the additional complication by a communication with the surface and the probability of septic meningitis adds much to the gravity. A fracture might be possible without either of these more serious complications, but it is of such rarity that it is safe to say that a fracture of the skull is always complicated.

Fractures involving the base differ from those of the vault in that the force necessary to their production is greater, and also in the proximity of the most vital structures. The prognosis in these injuries is therefore even more grave than in those of the vault.

No injury about the head is so insignificant as to be ignored, and none so severe that there is not a chance for the patient's life.

Symptoms.—Symptoms indicative of a fracture of the skull are frequently delayed for some time after the occurrence of the injury. I recall two cases terminating fatally in which symptoms of serious injury of the brain were not present for over twelve hours. In each the fracture extended

*Reported for this Journal by C. C. Mapes, M. D.

from the vault to the base, and in one almost entirely across the base of the skull.

The symptoms following injury to the skull have been classified as those of concussion and those of compression of the brain; and the lines of distinction have, by most writers, been clearly drawn. I believe in the majority of these injuries we will find symptoms present, which are the result of laceration of the brain, and also symptoms indicative of pressure upon the brain itself, either from bone or from hemorrhage. Some time must of necessity elapse before compression from hemorrhage occurs, but when a fragment of bone presses upon an important center, the symptoms come on at once; and in marked cases these symptoms are unmistakable—complete unconsciousness, slow stertorous respiration, full slow pulse, skin usually warm and perhaps moist, pupils respond feebly or not at all to light, temperature slightly subnormal; the condition of the pupils varies according to the site of pressure, often both contracted, or one may be dilated and the other contracted; power of motion is lost, retained urine overflows, and fecal incontinence prevails. Cases with marked symptoms are urgent, and the diagnosis certain.

The delay necessary for development of symptoms resulting from hemorrhage lessens the chances of benefit from operative measures owing to the frequency with which the brain fails to expand after exposure to this amount of compression. Therefore, it is imperative that the earliest symptoms of brain injuries be studied. Laceration of the cerebral tissue, no matter how slight, produces symptoms of syncope and shock, and these symptoms increase proportionately with the amount of damage done, from a slight dizziness to more or less complete loss of consciousness, with pallor of the face, cold, damp surface, nausea, and perhaps vomiting. This latter symptom, formerly looked upon as favorable—indicative of returning consciousness—while probably true sometimes, has more frequently no significance with reference to the amount of damage present. The pulse may be rapid or slow, but is usually feeble and compressible. Hemorrhage from the nose is not infrequent, and even bleeding from the ears may occur without fracture. (Gross.) This latter symptom only means that the blow was severe enough to rupture the drum membranes, and this of course would be more likely to occur when the petrous portion was broken. The respirations are usually shallow, intermittent, sighing, but may be noisy or labored. Temperature is markedly lowered.

These symptoms are very variable and often merge into those first described. The symptoms are by no means constant or indicative of the character of injury present, and are for the most part probably produced by the effect of the injury upon the sympathetic system.

With such a train of symptoms presenting, what is best to be done for the patient? No steps should be taken without the greatest care and painstaking to observe aseptic rules. It is perhaps better to allow the patient to go unaided than to add a septic infection to his already grave condition. Before arriving at any conclusion the scalp should be shaved and carefully

examined: valuable information can thus be elicited. Whenever there is the slightest suspicion of a fracture, an exploratory incision through the scalp should be made. The value of information thus elicited by far outweighs the danger of such incision which, with proper precaution, is trifling. Whenever a fracture is discovered the calvaria should be opened and its contents examined. The danger of epilepsy and other nervous disorders is so great, to say nothing of immediate danger to life, from failure to lift a fragment of bone or to remove a clot, that a surgeon is to be censured who fails to follow this plan of investigation and treatment.

The patient presented fully exemplifies the value of this advice, as is shown by the following history:

Mr. R. B., white, laborer, aged thirty-two years, was struck a severe blow on the right side of the head about 3:30 p. m., April 6, 1898. He was given a hypodermic injection of digitalin by his physician before admission into the hospital. About three-quarters of an hour later, upon admission into the ward, he was partially conscious, replying indifferently well to questions; never unconscious. Pulse was compressible, but only 40 to the minute; respirations 14, and shallow; no stertor; surface pale and cold, with slight perspiration; no evidence of paralysis. When I first saw the patient, pupils were contracted; later the right was dilated and the left contracted; both responded feebly to light. There was slight hemorrhage from both ears, most from the right.

After shaving the scalp, a contusion of the tissues above the right ear and a hematoma could be detected. On deep pressure the patient flinched. No fracture could be made out. The scalp was lifted to clear up the diagnosis, and the following condition presented: A depressed fracture two inches in width by three and one-quarter inches in length was found involving the lower part of the right parietal and upper part of the squamous portion of the temporal bone. On removing this a large extra-dural clot was discovered, evidently due to rupture of the posterior branch of the middle meningeal artery.

About two hours after the operation (April 6), the patient's pulse was 74, respirations 24, temperature 97.4° F.; at 7 o'clock the temperature was 98.6° F., reaching 100.2° F. later in the evening.

At 6 o'clock p. m., April 7, temperature was 99.8° F., respirations 22, pulse 60. Little change until April 10, when temperature was 101.6° F., respiration 32, pulse 78.

April 11, 2:30 p. m., temperature was 101.4° F., respirations 54, pulse 106, reaching 120 shortly afterwards.

On each of these occasions the wound was dressed, and immediately after the dressing the respirations came down. Up to that time there had been no suppuration, but there was a large blood-clot between the scalp and the dura which caused some pressure, and the absorption of serum probably gave rise to the elevation of temperature and acceleration of pulse. Two days later slight infection occurred; the wound was partially opened and

thoroughly irrigated, and after this washing (April 13) the man had no trouble whatever. There has been some little discharge from the wound since, but the brain seems to be free from infection.

While the patient was present, you observed that the wound had almost entirely healed. The man's intellection is perfect; there has not been at any time the slightest evidence of paralysis, and if we can judge from his present appearance, ultimate recovery is assured. I made a very large horse-shoe incision, extending from a point just behind the ear to within one inch of outer angle of the orbit.

The mortality following trephining (according to Wagner and Seydel) is so slight (1.23 per cent.) compared with the cases expectantly treated (33.33 per cent.), that in my opinion operative interference is positively demanded in all cases of fracture of the skull within reach of the investigation of the surgeon.

DISCUSSION.

Dr. W. F. Boggess: When I was a medical student we were taught to make a differential diagnosis always between compression and concussion of the brain; but the surgeon of to-day is rarely expected to make these fine points of differentiation between the two conditions. It is impossible to clearly define them, both are clearly due to true trauma, and the surgeon who stops to make a differentiation of symptoms is criminal. Under the aseptic precautions of modern surgery there is so little danger in opening the scalp and trephining that the surgeon is not justified in waiting for the development of symptoms, but should operate at once. All the cases of this character that I have seen, which were not subjected to prompt surgical interference, have either developed epilepsy, insanity, or other well-recognized brain symptoms clearly due to pressure.

The modern surgeon is dealing with brain lesions at the present day as he has never done before, and the results that have been obtained justify prompt surgical measures.

Dr. Jas. B. Bullitt: The appearance of the patient who has just been before us is the highest possible commendation of the course pursued by Doctor Sherrill. I commend most fully his statement that wherever even a suspicion of fracture of the skull exists, it is the duty of the surgeon to investigate it thoroughly by means of an exploratory incision; the scalp is so wonderfully and adequately supplied with blood that if proper rules of asepsis are followed an incision for the purpose of exploration is practically devoid of any possible danger, that it is to be commended even where its utility may prove to be futile.

What Doctor Boggess has said about the after-effects of these injuries, epilepsy, insanity, imbecility, etc., which may occur even years after the receipt of injuries to the brain which did not receive proper surgical attention at the time, is only forced upon the general surgeon many times during every year. I saw to-day a little boy who had sustained a blow on the head when nine years old, being now sixteen. Some time after the injury epilep-

tiform seizures began, and while he is a bright lad otherwise, still every day he has three or four of these attacks, and is practically incapacitated for any of the usual walks of life. As time goes on it is only to be presumed that the general effect on his sensorium will be more and more pronounced until finally he will be absolutely incapacitated for any kind of mental or physical work. I doubt not if this boy had received anything like the radical treatment Doctor Sherrill had suggested and illustrated at the time the injury was sustained, this after-train of symptoms might have been obviated; and while the boy has been operated upon once by a very good surgeon with temporary relief, recurrence was prompt, which is the history of nearly all such cases.

The initial danger of exploration is so slight, and the ultimate results are so favorable, that we ought all to be impressed with the fact that no chances should be taken, and that wherever there seems to be an indication for it, it should be done fearlessly and thoroughly.

Dr. A. O. Pfingst: Considering the subject of cranial fractures from an otological standpoint: We seldom see those cases of fracture of the bone which extend into and cause hemorrhage from the ear. I recall one case seen in the Louisville City Hospital which caused me to question whether hemorrhages from the ear were always due solely to rupture of the drum. Anatomically we know that the lateral sinus is in close proximity to the mastoid process and middle ear, and that it may be ruptured by a spicula of bone. Usually in cases where there is an oozing from the ears, or a hemorrhage which lasts for a short time and then ceases, it is caused by a rupture of the drum membrane. In the case I have mentioned there was hemorrhage for several days, and I have always questioned whether it did not come from the lateral sinus.

The fractures with which we have to deal are usually those due to direct traumatism, such as puncture through the ear with sharp instruments, and unfortunately these usually occur when there is pus in the middle ear. The usual cause of such wounds, is that people in cleansing the ear with cotton or other material wrapped on some sharp instrument being startled perhaps, they turn around quickly, and the instrument striking against something, is forced through the middle ear into the middle cranial fossa. When the patient reaches the otologist, the wound is nearly always infected, after which we have meningitis and death as a rule.

In this connection, I may be permitted to mention a case where the injury was inflicted not through the ear but through the roof of the orbit. A child while at play had a lead pencil in its hand, and fell, the pencil penetrating just over the eye without injuring the ball, a piece of the pencil remaining in the orbit. The wound was explored and several pieces of lead from the pencil were removed; a few days afterwards meningitis developed and death took place. In such a case as this, I question whether it is not better to leave the foreign body and take the chance of its being encapsulated than to operate as was done in this case and furnish the avenue by which

infectious elements enter the cranium. Judging from the result in this instance, it would seem advisable to allow the original wound to close.

Dr. H. Leavell : The general practitioner in the past has laid too much stress upon trying to make a diagnosis between concussion and compression without an exploratory incision. I do not believe we can have a fracture of the skull without compression, and with this view of the matter exploratory incision is the only thing to be considered. The mortality of primary trephining as stated by Doctor Sherrill certainly shows that the operation is almost entirely devoid of danger.

The question of brain surgery is one of great importance, and I think we can even make the diagnosis as to location of the injury in the cranial vault with more certainty than we can in the abdominal cavity from reflexes which are presented, injury to certain centers producing paralysis of various portions of the body ; and I think if brain anatomy and the nervous system were studied to a greater extent, we would be enabled to open the skull not always at the point of the original injury but other situations, and be enabled to evacuate a clot or remove other pathological conditions causing epilepsy, insanity, imbecility, etc., which has been mentioned by previous speakers as occurring after head injuries.

Dr. P. F. Barbour : We general practitioners often see patients soon after blows upon the head have been sustained, and should immediately refer them to the surgeon for operative interference if the injury seems at all severe ; we see more of the results of these accidents to the cranium than we do of the accidents themselves. I agree with the opinion expressed by Doctor Sherrill, that wherever you suspect, even if there is only a suspicion of fracture, that the scalp ought to be lifted at the site of the injury to see whether the bone has sustained a fracture. The results of depressed fractures without operative interference are so serious, and the mortality from trephining so slight, that the surgeon should have no hesitation in resorting to operative measures. All of us have seen the results, such as epilepsy, imbecility, etc., following blows on the head. It may be so severe as to produce violent grades of insanity. Even when the bone itself is not depressed there may be a pachymeningitis developed under the location where the blow has been received which will produce constant headache, derangement of the nervous system, etc., therefore exploratory operation should always be insisted upon. I know the teaching in this respect has changed greatly in the last few years. I believe the best plan is to turn these patients over to the capable surgeon and let him operate as soon as possible. It will not do to postpone operation until epilepsy has developed. If the depressed bone is removed immediately after the injury, epilepsy will not supervene ; but if you delay operation until after epilepsy has developed, then you cannot promise to cure it by removing the exciting cause.

Dr. A. D. Forsyth : A boy was struck on the head by a negro at 2 o'clock in the afternoon, the weapon used, was supposed to be a club ; and the boy was struck, it was thought, on the side of the head. He kept on

about his work until 5:30 o'clock the same afternoon, when he fell, became unconscious, and paralyzed on one side. They telephoned for the hospital ambulance. We went after him, and found he had at that time, stertorous respiration, lying on his back, one pupil dilated, the other contracted. We put him in the ambulance and started to the hospital. We had gone about three blocks, when the boy stopped breathing, and the pulse also ceased. We practiced artificial respiration; his pulse returned, probably reaching 130 to the minute when we arrived at the hospital. The boy died before any operation could be performed.

We held a post mortem the next morning and found a large extradural blood clot, which evidently caused his death. There was no fracture of the skull whatever. I am positive about this, as every part of the bone was critically examined.

Dr. W. B. Gossett: I recall a case seen a short time ago, where I believe if it had been operated upon the patient would have made a better recovery. A man became involved in a quarrel, was hit over the head and knocked down, and rendered unconscious by the blow. He remained in that condition for three hours. A physician was called and he was sent home. I was asked to see him two days afterwards. He was then in a partially conscious condition, and had ptosis of the right eyelid. He complained of pain all the time in the back part of his head, and especially over the right eye. I made a thorough examination of the skull, and Doctor Dugan was called to see the case in consultation, but we found no evidence of a fracture. In the after-treatment of the case I had a great deal of trouble from nausea and vomiting. I tried nearly everything that has been recommended for the control of these conditions, and the only drug I found to be of benefit was cocaine. I kept him thoroughly under the influence of cocaine for three or four days, then discontinued its use, the vomiting returned and I had to resort to the drug again. He had pain over the right eye, and pain in the back of the head continued though somewhat lessened in severity.

I believe now that this man had a fracture that could not be made out by an external examination, or a rupture of a small vessel and blood clot on the brain. He was unable to stand on his feet for quite a long time; I kept him in bed for four weeks; at this time against orders he got out of bed and tried to walk, and immediately became worse. At the end of six weeks he was able to get up and around the room and in two months was out. I believe if an operation had been performed immediately following the injury the man would have made a far quicker recovery.

*r. J. G. Sherrill: There are a number of distressing conditions which may arise as a result of a blow upon the skull, and the one described by some of the previous speakers is of such a character that it seems difficult for the surgeon to tell exactly what course to pursue and what treatment to institute. We would scarcely be justified in trephining in the absence of symptoms showing presence of a clot or other pathological condition, or without the presence of a fracture after making an exploratory incision through the

scalp, although we might be justified in opening the scalp itself at the site of the injury or elsewhere if it seemed indicated. But after an obscure injury of this character, when symptoms develop in the course of twenty-four hours or three or four days, then the surgeon should resort to complete operative measures. Frequently without any break in the external surface of the skull we find a fracture of the inner table; this fracture may be slight, but it may be sufficient to produce a marked hemorrhage. Symptoms may not develop for some time; usually these patients finally develop epilepsy or some other grave condition. When a fracture of the inner table occurs ordinarily we have a fracture of the outer table, but this is not true in all cases. In all injuries about the skull where you have any symptoms of fracture, an exploratory incision should be made, and if then you find any signs of fracture you should lift the bone and examine the structures beneath, because pressure upon the brain kept up for four to six days will in all probability produce such changes in the brain tissue that it will not expand after pressure is removed; you have a scar formed and the contraction of this new tissue will render expansion of the brain incomplete, and in that proportion the brain tissue will not return to its normal condition. I believe also that this cicatricial tissue is one of the frequent causes of epilepsy; therefore I am very strong in my opinion that these cases ought to be operated upon whenever we have the least suspicion of a fracture; and if we have any other diagnostic signs of a clot without fracture, trephining should be done, the location being determined by localized symptoms, reflexes, etc., in a careful examination of the case.

The Disease of Inebriety.—Of late years the opinion that inebriety is a disease has been so largely put forward that it has, with many, quite obscured the fact that it is also a vice. In common usage the term covers every form and degree of excess in the use of liquor, from periodic dipsomania—which it may be said does not cover every form of occasional spree, as some would have it—to the common besotted habitual drunkard. It, like charity, certainly covers a multitude of sins, and it would be well for us to keep in mind this fact. Only in a small proportion of cases is drunkenness due originally to a disease properly so called. There are very few drunkards who have been irresistibly impelled to their depraved appetites, and there can not be said to be such an overwhelming majority of them who could not reform were they willing to take themselves out of the reach of temptation. They are very largely the victims of vicious self-indulgence, and this fact should not be forgotten or obscured by a theory that they are subjects of disease, which would naturally imply that they were also innocent victims. Many are, it is true, handicapped by heredity or environment, and to that extent they deserve some sympathy, but it should be intelligent sympathy, not the kind that ignores facts and perverts conduct. One of the worst effects of this popular notion that inebriety is a disease is its encouragement to quackery. The numerous "gold" and other cures are the direct results of this notion, and their too often ultimately damaging effects are one of its consequences. It would be well for medical societies that are called on sometimes to endorse the views of the pathologic nature of inebriety to bear in mind these aspects of the question.—*Jour. A. M. A.*

Report of Case of Elephantiasis.

By ALBERT ANDERSON, M. D., Wilson, N. C.

FRANKLIN VOSCO EDGERTON, subject of this sketch, was born Oct. 28th, 1888. His photograph was taken to send to your JOURNAL because of the rarity of his disease. We have named it elephantiasis more from the general resemblance to that disease than from the elephant condition of the skin.

Acting upon the suggestion of Dr. J. Howell Way that his photo would be of interest to the profession (Dr. W. having read a notice of the case in the *Wilson Times*), I invited Mr. G. V. Lewis, our leading artist, about a month ago, to go with me to the boy's home to take his picture. We found him willing and anxious to have his photo taken.



The following history was given : He was a healthy child and remained so till seven years old. Three and half years ago an aching commenced in the calf of his left leg and the pain continued about a year without visible change in the contour of the leg. Then a small lump appeared in the calf and began enlarging in all directions, and this continued until the leg is as seen in the photo. Measurements of the leg are as follows : Circumference just below the knee joint $25\frac{1}{2}$ inches ; just above ankle joint, 22 inches ; from knee to ankle joint, 14 inches. The boy measures 22 inches around the waist.

At first paroxysms of pain came on at intervals of a week. Pain now is almost continuous. He has what he terms "cramping spells," which are relieved by rubbing with camphor. While in the greatest pain the blood vessels can be seen to fill and throb. He suffers with indigestion. Some of his father's ancestors died of cancer. His mother's parents had consumption.

The Treatment of Gonorrhœa—With Clinical Reports.

BY ROBERT C. KENNER, A. M., M. D., Louisville, Ky.

THE prevalence of gonorrhœa and the serious results which follow in its train make it an affection of the greatest importance. In fact, it has only been a short while comparatively, that the profession in general has comprehended the nature and seriousness of gonorrhœa.

Impotence and stricture in the male, and salpingitis and other serious conditions in the female, are results of gonorrhœa that are encountered daily by the medical practitioner.

In the treatment of gonorrhœa, the manifest aim of all treatment consists in the administration of such drugs as will relieve the painful conditions and those which tend to abbreviate the duration of the gonorrhœal process.

In carrying out the *first* indication—that of relieving the painful conditions, we will employ remedies that render the urine alkaline, and those which act favorably in overcoming the local inflammatory trouble.

For the first four or five days, or a week, the highly inflamed condition of the urethra will make micturition most painful (*ardor urinæ*). This can be best relieved by the internal administration of alkaline diuretics, and the regular bathing of the penis in warm water.

Erection is attended with great pain (chordee) with these patients, and in connection with the alkaline diuretics should be given some antiaphrodisiac. In this way we avoid not only the scalding of the urethra, but keep down painful erection. Camphor is a most reliable antiaphrodisiac, and it can be given along with the acetate of potass. Acetate of potassium has long been a favorite alkaline diuretic with me.

The following prescription generally acts well in my hands in rendering the urine alkaline, and at the same time it is sufficiently antiaphrodisiac:

R Potassii acetat ʒ ss.
 Aquæ camphoræ ʒ x.
 Aquæ puræ..... q. s. ad. ʒ vj.

Sig. Tablespoonful every three or four hours, as the *ardor urinæ*, or the *chordee*, may or not be urgent.

Another matter of great importance to be employed for the relief of the local inflammation is the regular submersion of the penis in water as hot as can be borne by the patient. The patient is directed to get a small tin bucket and heat some water in it and let the penis be submerged in this for twenty or thirty minutes at a time, three or four times a day. Some patients cannot bring this to bear in their treatment, but when it can be done the patient is greatly benefited.

The patient should eat a bland, unstimulating diet, and avoid liquors of all kinds.

These measures comprise the best means I have tried for the treatment of the primary or purely inflammatory stage of the affection.

They will, however, be of little avail to us, in abbreviating the duration of the disease. I may also say that their employment will not be called for after that period where the pain is the leading issue has passed.

In carrying out the *second indication*—that of administering remedies which will abbreviate the duration of the disease, we will find medical literature full of remedies which have been lauded as specifics.

One of the commonest means of treatment consists in the injection into the urethra, by means of a syringe, of some such drug as sulph. zinc, permang. potass., bichlor. mercury, or other agent.

A long experience has convinced me that injections of any kind do not tend to abbreviate the duration of gonorrhœa, but on the other hand they tend to make the case worse.

The introduction of any instrument in the urethra will produce irritation, and very often instead of producing a cure, the regular introduction of a syringe will keep alive a gonorrhœa. It is a common thing to see a protracted attack of gonorrhœa get well when the injections are discontinued.

Reason is also against these injections. The gonococcus, as is well known, resides deep in the urethral substance, and is beyond the reach of any injection. It matters not how deadly an injection may be, it cannot reach the gonococcus, and it is therefore useless for that purpose. This fact is one which is undisputed by the best observers in the field of genito-urinary surgery.

I have come now to rely entirely upon internal remedies to abbreviate the duration of attacks of gonorrhœa.

The experience of the profession for years has been that santal oil is a remedy for gonorrhœa which will bring good results.

For some time I have depended upon saw palmetto and santal oil in combination. I begin with this remedy immediately after the inflamed painful stage has disappeared. I exhibit these agents in the form of globules, saw palmetto and santal oil (P. D. & Co's.). These I give in doses of one or two globules four times daily. Given this way to a patient who will follow directions as to diet, abstinence from sexual intercourse, etc., I have found it possible to easily bring the disease to a favorable termination in from two to four weeks.

Below I give the clinical histories of several cases which have yielded to this treatment. Those of course are only a few of some fifty cases of which I have notes:

Mr. Y., age 26. This patient applied for treatment for gonorrhœa on the 1st of April, 1899. He had just seen the first symptoms, and was suffering with painful micturition, etc. I gave him the prescription for acet., potass., camp., etc., and told him to submerge his penis three or four times daily in hot water.

On this he got along well, and after the fifth day his discharge became

copious, and the inflammatory stage was not troublesome. I put him on globules, saw palmetto and santal oil (P. D. & Co's. after each meal and on going to bed.

He took his medicine regularly and observed my directions faithfully.

He got along so well that the discharge ceased altogether after the twenty-first day of treatment. He has had no relapse or anything like a gleet morning drop or any trouble.

Mr. Sam C., age 30. This patient had been treated with various injections, emulsions, and so forth, by several physicians, but had not obtained benefit although he had had the disease for six weeks. He was at once put on globules saw palmetto and santal oil (P. D. & Co's.)—two, four times daily. On this treatment he began to improve appreciably after the fifth day. Two weeks further employment of this remedy found this patient getting on well—having no discharge, and he has had none since.

Mr. Orllie, age 33. This gentleman, a married man, contracted gonorrhœa while his wife was away from home. He applied for treatment, saying that he was in distress for fear he would not be well against her return home.

The inflammatory stage was not marked, and did not continue longer than two days.

After this he began with the globules saw palmetto and santal oil, (P. D. & Co's.) as in the above case. This man did nothing that would aggravate his case, and never failed to take a dose of his medicine. He had entirely recovered in twenty-seven days from the inception of treatment.

Mr. Abraham L., age 31. This man had been suffering for three months with gonorrhœa—having taken all the usual remedies, injections, etc. I had him discontinue all these and take only the (P. D. & Co's.) globules of saw palmetto and santal oil.

On this treatment he got along well and I discharged him eighteen days later, cured—and he has had no symptoms, such as gleet, since—after a lapse of several months.

Mr. Z., age 22. This patient had passed the initial stage and was now in the second week of the disease. On the globules of saw palmetto and santal oil he got on well and ceased to have any discharge after the fourth week.

Chicken Bones and Other Foreign Bodies in the Rectum.

By DR. K. G. AVERITT, Cedar Creek, N. C.

IF you will kindly give me space in your valuable JOURNAL, I will report the two following cases :

1st. Some time about the first of July, this year, Columbus W., colored, came to my office and stated that he had not had a good action from his bowels in several days, and that he was suffering so much pain that he could not sit down. I introduced my finger into the rectum and about three inches

from the anal orifice found a bone about one inch long situated transversely across the rectum. I removed it, with the results that the symptoms immediately ceased and his bowels acted freely.

2d. On the 3rd inst., I was called by a very competent physician to see Mrs. S., a widow lady, about 70 years old. He had been treating her for some time previously for indigestion, disordered liver, etc., and called to see her that morning, when he found her suffering great pain from impaction of fæces, due to stricture four or five inches up the rectum. He found it impossible to pass the stricture, and administered an opiate to relieve pain and sent for help. Upon examination, I found his diagnosis correct. We placed her across the bed and I gave chloroform and he tried to pass the stricture, but owing to the fact that his hand and fingers are very large, failed in the attempt. He then took charge of the chloroform, and as my finger is much smaller than his, I attempted to pass the obstruction. I succeeded in a few minutes, and as soon as I got my finger through the stricture, I found a chicken bone, which I removed, and continuing my efforts at dilatation, removed four others averaging from $\frac{3}{4}$ to 1 inch in length. As soon as I removed these, her bowels began to act freely, and I saw several water-melon seeds pass, and I am satisfied more bones came away, but there was so much fæcal matter I did not search for them. The patient obtained relief at once, and I am informed by her physician, is doing well.

These cases are of interest, as they show how foreign bodies can pass through the alimentary canal and then become lodged almost at the point of exit.

SELECTED PAPERS.

We Have Tried Them.

By M. G. PRICE, M. D.

[Louisville Journal Sur. and Med.]

Possibly not every physician keeps a commonplace book where he writes down items that will answer some good purpose hereafter, or perhaps it is a bit of experience that will thus be preserved for future reference; but it has always occurred to us that it was the proper thing to do.

On a shelf before us is a book of scraps gathered from many sources, carefully pasted in and laboriously indexed, forming a valuable formulary. In our pocket we carry a small book that we picked up somewhere, that is a complete and valuable materia medica and therapeutics. Here and there in it we find blank leaves most agreeably interspersed. On these leaves we are accustomed to write whatever occurs to us as useful. Some of these things we want you to read. We take them at random from the book:

For abscesses, take boric acid and acetanilid, equal parts, and glycerine to make a thick paste; spread on a soft cloth and apply.

Hyoscyamin is a grand drug in convulsive and spasmodic conditions,

and we want to know how to administer it to children. Take this little schedule :

Age.	Granules 1-250 gr.	Aqua.
1-3 months.	1	3 24
3-6 "	2	3 24
6-9 "	3	3 24
9-12 "	4	3 24
24 "	6	3 24
48 "	10	3 24

Twelve years, one granule every fifteen to thirty minutes until dilatation of pupil.

Bronchitis (acute), take $2\frac{1}{2}$ grains of acetanilid, $2\frac{1}{2}$ grains of salol every few hours. By this means I have frequently aborted this trouble in my own case.

For gastric catarrh, sodium salicylate is invaluable.

We sometimes wish to abort an oncoming chill in a patient; fifteen or twenty drops of chloroform may succeed—if not, we may try atropine or glonoin.

A cold in the chest with tightness and dry hacking cough may be greatly remedied by giving apomorphin and potassium bichromate.

A cold is sometimes aborted by

Tr. gelsemiumgtt. x.

Dover's Powder.....gr. v.

Every two hours.

Who of us has not been besieged by weary mothers for something for her crying infant that is suffering with three-months colic. Hyoscyamin is the drug.

I want to add my testimony to the efficacy of iodide of lime (the brown article) in croup. It will cure it.

Minute doses of cresote in glycerin is the equivalent of antitoxin.

Nitro-glycerin is a giant in dysmenorrhea, $\frac{1}{250}$ grain every fifteen to thirty minutes until physiological effect.

Drop doses of tincture cantharides will be found effectual in irritable bladder with women with frequent desire to micturate. Gelsemium also said to be good.

Don't fail to use turpentine in hemorrhage. Must be given in large doses—one to two drams without dilution in emergencies.

In two cases of pneumonia we have met with hiccough that lasted for four or five days. We found

R Strychnia.....gr. 1-40

Camphor mon.....gr. $\frac{1}{2}$

Hyoscyamingr. 1-50

Glycerine and chloroform and hot infusion of capsicum were tried as well a hypodermic of morphia. The first prescription as well as the morphia succeeded.

More Accurate.—"Will one in the class," asked the teacher of rhetoric, "give a better form to the sentence, 'John can ride the mule if he wants to'?" "John can ride the mule if the mule wants him to," said the boy with the bad eye.—*Chicago Tribune*.

An Organic Compound of Silver Nitrate.*

By GEO. H. STUBBS, M. D., Birmingham, Ala.

[The Alabama Medical and Surgical Age]

The progress for the past year or so in therapeutics has been marked by that development of former knowledge which is of lasting value, rather than by brilliant achievements which are so often intimately disappointing. It is, therefore, with a feeling of reluctance that I call attention to the new product to which I will briefly refer, fearing that this remedy, like many others, will for awhile flourish like the green bay tree; but, after being weighed in the balance and found wanting, will be banished to painful oblivion, and find its place beside the many thousand remedies long since given up, lost and forgotten.

The year 1898 gave us several new remedies, most of which no doubt originated in the fertile brains of aspiring synthetic chemists. All more or less possess new claimants for favor—perfect substitutes for something, thoroughly reliable and harmless, etc.

It is needless to say that organic chemistry has furnished the most fruitful field, and the hydro-carbon group, with its myriads of known and unknown combinations, furnishes unlimited resources for experiments. The coal tar products are still interesting the minds of these men, and what the future will bring forth no one can tell, but that there will be a great many—some good, and some bad, and some very bad—no one will doubt; at least, judging from the past, this is what we may expect.

I will refer by name only to some of the new remedies appearing in 1898, with the exception of animal extracts and blood serums, as follows: Acetylene, Ammonal, Analgene, Chloralose, Cammeline, Digitaxine, Dulcine, Eosote, Echinine, Ferrosyptine, Formopirine, Glutol, Hemol, Hotzinal, Malarin, Orphol, Pelletine, Pyramidon, Pyrantin, Salacetol, Samofom, Trammatol and Tannoform. The majority of these are synthetical products manufactured to take the place of some older and efficient remedy, however disagreeable, of which few, if any, will gain the relative favor of iron, quinine or strychnine.

The year book of medicine and surgery for 1899 will contain many new remedies seeking admission, and recognition. Among them will be Protargal, another substitute for nitrate of silver, which seems of have met with general acceptance among the medical fraternity, and of which I will have a few words to say at length, regarding its physical appearance, behavior, therapeutic value, and mode of application.

Protargal is a preparation of silver with a proteid base. It occurs as a yellowish brown powder readily soluble in water, forming a clear solution in strength to 50 per cent. The solution is neutral in reaction, and unaffected by exposing it to air, heat or light. It also dissolves completely in albumin solution, sodium chloride and glycerine, and is not precipitated by dilute

*Read before the Jefferson County Medical Society, July 24, 1899.

hydrochloric acid, alkalies or sulphides. The powder contains about 8 per cent. of free silver, while argonin, another somewhat recent product, contains about 4 per cent. Argonin is a fine, white powder, soluble in water on gentle warming, forming a murky, milk-like solution, and is decomposed by heat or light, and does not keep well even in dark glass bottles. The silver in these preparations is not present in the form of salts, but in organic combination which proposes to preserve the therapeutic action of the drug when locally applied, and at the same time has the irritating properties of the nitric acid eliminated. Professor Neisser, one of the most noted genito-urinary specialists, first introduced nitrate of silver for the purpose of destroying gonococcus, which for a long time has been a favorite means with many surgeons for the treatment of gonorrhea. The only difficulty has been that the action of the drug is only superficial, owing to the fact that it forms insoluble combinations with albuminous substances, while a deeper penetrating effect is desired. The salts of silver are very irritating to delicate and inflamed mucus membranes, necessitating low percentages of strength. This, in connection with its limited penetrating power, caused Crede to first make the suggestion of preparing an organic compound. Since that time, synthetic chemists have endeavored to prepare a silver combination free from the disadvantages above mentioned. As a result, they have obtained, among many others, protargol, and to judge from the continued favorable reports, this product has established a reputation as a destroyer of the gonococcus, and a most valuable remedy in the treatment of acute and chronic gonorrhea, and gonorrheal ophthalmia, and other acute and chronic affections of the mucus membranes, due to gonorrheal infection. Personally, I have had but little experience with argonin, and only a limited amount with protargol, having had to confine its use entirely to the field of ophthalmology. In regard to its use in the treatment of urethritis for which it was first intended, I will have to quote from the experience and printed reports of others.

The medical journals for the past year have been flooded with clinical data, comments all more or less favorable to the use of protargol in cases where silver nitrate was formerly used. These reports are so numerous that it would be a matter of impossibility to epitomize. Possibly no new remedy in recent years has received such general attention, and it is unfortunate that the firm manufacturing this article has seen fit to use this matter for the purpose of advertising it to the profession. Investigation has shown that this agent has the power to arrest the growth and destroy bacteria; one per cent. solution kills anthrax and typhoid bacilli, bacterium coli and pneumococcus after short exposure. The power of destruction being greater when the germs are in an albuminous media, anthrax spores were destroyed after an hour's exposure, but staphylococcus pyogenes, aureus and albus proved to be less readily affected than other bacteria.

I beg to extract from the *Year Book of Medicine* as follows :

"Regarding the toxic properties of the drug, when injected subcutaneously and instilled into the eyes of rabbits, local irritation follows. Benaria

uses the drug in the treatment of gonorrhea in the male in solutions of 3 to 1-5 per cent. strength. He begins with the weaker solutions, and gradually increases the strength. The usual result is that the discharge diminishes rapidly, and the gonococcus disappears in about fourteen days."

Besides its usefulness in gonorrhea, he has found it a good antiseptic in infected wounds and small abscesses. Neisser reports most favorably on protargal in gonorrhea. He begins early with 1-4 per cent. and gradually increases up to 1 per cent.

I was for some time reluctant and feared to experiment with this drug in such a grave disease as purulent ophthalmia, especially while silver nitrate has proven so satisfactory since its introduction by Crede. I finally yielded, and am able to report a most favorable result in two cases of purulent ophthalmia in the new-born. As compared with silver nitrate in similar cases, the pus secretions and inflammatory process disappeared earlier and left the conjunctiva and cornea uninjured. In one case the discharges disappeared in fourteen days; in the other on the twenty-second day, against the average time under nitrate of silver being four or five weeks. The strength used varied from 10 to 50 per cent., the latter being the saturated solution. In neither case was a microscopical examination made, but the type was typical ophthalmia neonatorum, and the evidence was in favor that the mothers had been infected. These cases were seen early in the disease, and before there had been any laceration of the conjunctiva or corneal ulcers.

On a recent visit to New York, I made special inquiry among my confreres regarding their experience and opinion of protargal. I found them somewhat divided as to opinion, with no doubt of its ability to stop the discharge and cause disappearance of the gonococcus in the shortest length of time, but that it seems to predispose to softening and sloughing of the cornea in some advanced cases. If this is true, it is a serious objection; but I had no such occurrences in my cases, and regret that the field here is so limited, for cases of this character are few and far between, and I have not been able to obtain a more extended experience. The comparatively few cases in this immediate territory is no doubt due to the care and prophylaxis of the family physician, both during and immediately after parturition. When it does occur, we have a hard fight to make; if we fail, we lose a patient, and the State gains a burden for life.

I have used protargal in other catarrheal conditions of the eye, when nitrate of silver was formerly used, both in acute and chronic affections of the mucus membrane with very satisfactory results. None of our patients like to be hurt, and the least pain and inconvenience you give, the results being equal, the better they like it. I have found the remedy specially useful and effective in diseases of the lachrymal apparatus, in three aggravated cases of dachryocystitis. It caused little or no irritation, and a rapid disappearance of the pus. When injected into the sac, it penetrates deeply into the tissue and can be tasted several hours after being injected through the lachrymal canal into the nose. I frequently use it as a collydium in chronic

conjunctival catarrh in from 1 to 3 per cent. solutions. It does not irritate the eye, and causes a fairly rapid absorption of the thickened conjunctiva, with relief of symptoms.

In conclusion, the advantage it possesses over nitrate of silver, from the experience of myself and others is, that it keeps well when in solution; it is not affected by light; it does not irritate the mucus membrane; it can be used indefinitely. I sincerely hope that this new remedy will stand the tests of time. My only regret is that the manufacture of the article is controlled by a single firm.

Improvements in Army Medical Service.—Experience in the late war has suggested marked improvements in army medical service, which are summed by Devine, in *Boston Med. and Surg. Bulletin*, in the following paragraphs:

1. Physical examination of recruits; at first voluntary and now made mandatory.
2. Ration to be used at camp. Something after the pattern of army ration, but modified for adaptation to State service.
3. School for medical officers. One session annually.
4. Company bearers, four privates in each company specially trained in emergency and first-aid work.
5. System of red tape patterned after regular army, but modified for State service.

The following is a brief résumé of the suggestions offered to improve the efficiency of the army medical service. Some of them have been practically adopted by the Massachusetts Volunteer Militia, and it is hoped will be adopted by the entire National Guard:

1. That professorships of military medicine be established in every reputable medical college.
2. That until such time as professorships are established, the State provide a course on required subjects.
3. That physical examination of officers and men be made mandatory.
4. That troops at State encampments conform as nearly as possible to duties required in service on the field.
5. That every medical officer receive commission. (This pertains to contract surgeons.)
6. That one or more men in every company be detailed for regular instructions in ambulance corps, to prevent possibility in the future of the country losing the service of men especially trained for this service.
7. That one medical officer be selected in each regiment or brigade for his surgical ability.
8. That a corps of trained female nurses be organized in every State.
9. That divisional hospitals, in the broad sense, be abolished, and that small brigade and divisional hospitals be established for special cases, such as surgical and contagious.
10. That the volunteers follow, as closely as practicable, the regular army, so that when called into service together the two branches may work in harmony.
11. In addition to the present instruction in "first aid," a course in prevention of contagious diseases, etc., be given.
12. That a reserve staff of medical officers be formed in each State; said staff to be composed of ex-members of the medical department of the National Guard.

North Carolina Medical Journal.

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Editorial.

THE CALIFORNIA QUARANTINE AGAINST CONSUMPTIVES.

The California State Board of Health has taken a step, which if enacted into a law, will make it more difficult for consumptives to find a haven of refuge in the genial climate of that great State. As is well known, the Pacific slope furnishes an asylum for many thousands of tuberculous individuals, 20,000 entering California in one year, so it is stated; and the growing conviction of the contagionsness of this disease has apparently aroused a dread upon the part of health officials, and no doubt also in the public mind, that the yearly influx of so large a number of tuberculous subjects scattering the germs widespread throughout the confines of the State will in time render this salubrious country a hot-bed of phthisical infection. Theoretically it must be admitted that there is some ground for fear, it having been shown that communities once almost entirely free from consumption have had their apparent immunity destroyed by the importation of diseased persons; the natives being infected by the visitors. As a result of practical experience, it has been claimed that in Colorado, for instance, the sections frequented by consumptives have not shown an increase of indigenous cases of tuberculosis, and that contagion from contact is quite rare. On the other hand California, which, it might be supposed would normally show a very small tubercular mortality, is credited with 2.39 per 1,000 of population by the last census report; almost as great as the same census gives for Massachusetts, viz: 2.67 per 1,000. Of course to form a fair conclusion from these statistics it would be necessary to know what proportion of the consumption mortality in the former State was indigenous.

The question of the possible infection of a certain area of country largely

frequented by tuberculous subjects possesses a local interest for physicians of this State, since Western North Carolina is becoming increasingly popular as a resort for the victims of pulmonary troubles. Undoubtedly climatic conditions and environments have much to do with the probability of such a danger as the California Board of Health seems to anticipate, and as yet our phthisical death rate (1.37 per 1,000 population), does not exhibit an abnormal mortality from this cause.

THE PREVENTION OF NAUSEA AFTER GENERAL ANÆSTHESIA.

Of the disagreeable after effects of general anæsthesia, perhaps none are productive of more discomfort to the sufferer than the nausea and vomiting. The various expedients which have been resorted to for its relief have, as a rule, resulted in such lamentable failures that we have gotten into the habit of telling the patient that it will have to "wear off" of itself. Ether has the unenviable reputation of being more frequently followed by this annoying symptom than has chloroform, and no doubt merits this position; but nausea and vomiting are a sequel of chloroform inhalation sufficiently often to make a reliable preventive highly desirable. It is claimed by the advocates of the Schleich methods of administering various ethereal mixtures combined with reference to their relative degree of volatility, that gastric disturbance is quite uncommon.

Reports do not entirely bear this claim out, either as regards the absence of nausea, or the greater safety with which the mixed anesthetics may be used. A much simpler plan for the prevention of nausea is the immediate inhalation of vinegar after the anæsthetic is discontinued, as first advised by Mackenrodt. The vinegar method has been quite extensively used in this country, and with varying results. Dr. Samuel Edwards, of the Bay View Hospital, Baltimore, Md., in a recent communication commends it very highly, not only for the sick stomach, but as alleviating the intense thirst so often present after serious operations. In the experience of the hospital mentioned, extending over a period of four years, it was successfully employed in 97 per cent. of the cases.

The beneficial effect of the vinegar in chloroform vomiting is explained by the action of acetic acid upon the free chlorin, one of the products of chloroform, which is very irritating to the mucus membrane of the pharynx, thereby inducing vomiting. In ether anæsthesia, where it is equally effective, the natural secretions of the air passages are stimulated and the fumes of the vinegar are supposed to have a soothing influence upon the peripheral nerves of the parts, lessening the irritability of the pneumogastric. However much the above explanations may explain its action, we must confess that after trial the inhalation of vinegar has not realized expectations, although it must be admitted that its administration may not have been persevered in a sufficient length of time, it being recommended that the inhalation be kept up continuously for hours.

A SLIGHT CORRECTION.

In the issue of September 20th, an editorial upon "Prof. Sanarelli and the Newspapers" appeared, in which reference was made to other prominent scientists who had not acted creditably from a professional and ethical standpoint. By error of the proofreader, the name of Behring was omitted in connection with the patent on antitoxine, the paragraph as printed making it appear that Koch had sought a protection upon his process of producing antitoxine, whereas, of course, Behring was referred to.

Carbolic Acid in Tetanus.—Dr. Horatio C. Wood (*Merck's Archives* 1899, Vol. I, No. 5), describes Baccelli's method of using carbolic acid in the treatment of tetanus, as follows: If the tetanus is of traumatic origin, the wound is thoroughly cleansed with antiseptic solution (either corrosive sublimate or carbolic acid); the patient is placed in as quiet an apartment as can be obtained; the ordinary rules of diet, etc., are to be carried out, and subcutaneous injections of a two per cent. solution of carbolic acid given at two or three hour intervals. If the case is one of only moderate severity, commencing doses of about 0.20 gm. (3 grains) in the twenty-four hours may be used. This dose should, however, be rapidly increased to at least double or triple the quantity.

It is remarkable what heroic doses of carbolic acid tetanus patients will bear. Although Schmiedeberg puts the maximum daily dose at 0.50 gm. and Jaksch mentions a case in which 1.0 gm. caused death, in tetanus doses of 0.72 gm. per diem have been injected hypodermically with no smokiness of the urine, nor other sign of poisoning; and one case is recorded in which 3.0 gm. (45 grains) were given in the twenty-four hours, with smokiness of the urine, but apparently no more dangerous symptoms, the patient recovering from both the disease and the remedy. Along with the carbolic acid, other remedies, as morphine or chloral, may be given, as thought necessary.

In comparing the results obtained by the use of carbolic acid, of Behring's antitoxin serum, and of Tizzoni's serum, Ascali records in his tables, thirty-four cases by Baccelli's method, with but one death; twenty-eight cases by Behring's serum, with ten deaths; and forty-two cases by Tizzoni's serum, with seven deaths.

These tables give the antitoxin treatment a lower mortality than most authors, the various estimates ranging from 25 per cent. to 40 per cent. mortality. Nevertheless, the carbolic acid far surpasses (statistically) the serum treatment in life-saving power.

Ascali claims for carbolic acid that it causes no secondary symptoms, which can hardly be said of the antitoxin, and that it is cheap and readily obtained.

R. L. F.

The Treatment of Nasal Hydrorrhœa.—M. Lermoyez (*Progres Medical* June 10th) recommends that during the first week the patient should take daily about one two hundred and sixtieth of a grain of sulphate of atropine and a thirty-fifth of a grain of sulphate of strychnine. During the following week this dose may be doubled, and, says the author, even tripled in the third week. A cessation for ten days is then counseled, after which the course may be renewed.—*N. Y. Med. Jour.*

Book Reviews.

The Treatment of Pelvic Inflammation Through the Vagina.—By William R. Pryor, M. D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon City Hospital; Visiting Surgeon St. Elizabeth Hospital, New York City—With 110 illustrations in a volume of 248 pages. W. B. Saunders, Medical Publishers, Philadelphia. Price \$2.00 net.

The volume embodies the teachings of the author at the New York Policlinics. Dr. Pryor gives his personal views upon the treatment of pelvic inflammation in its various forms, views which he carries out in practical work. As is stated in the preface of the present work, a great confusion exists in the professional mind as regards the treatment of pelvic inflammatory lesions, here we have the individual opinions of the writer clearly set forth, devoid of any prolix discussion of doubtful points. The author's well known preference for the vaginal route in the operative management of pelvic inflammations is openly stated and the spirit predominant throughout the book is one of aggressive interference, although a palliative line of treatment is laid down for each disease.

We can especially commend the painstaking care with which the various modes of treatment are described, nothing that conduces to a proper understanding of the text, or necessary to success in treatment being considered too insignificant for careful mention. Thus, the last portion of the book is devoted to short but concise direction concerning the complications likely to arise; the management of secondary hemorrhage; the intravenous injection of normal salt solution, instruments, sterilizing, etc. The illustrations are especially fine and the publisher has as usual produced a volume of excellence.

Electro-Hemostasis in Operative Surgery. By ALEXANDER J. C. SKENE, M. D., LL.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital; President of the American Gynecological Society, 1887; Corresponding Member of the British, Boston and Detroit Gynecological Societies, of the Royal Society of Medical and Natural Sciences of Brussels, of the Obstetrical and Gynecological Society of Paris, and of the Leipzig Obstetrical Society; Honorary Member of the Edinburgh Obstetrical Society; Fellow of the New York Academy of Medicine; ex-President of the Medical Society of the County of Kings; ex-President of the New York Obstetrical Society. D. Appleton & Co., New York, 1899. Price \$2 00.

Since the method of treating the ovarian pedicle by means of the electro-cautery was introduced by Keith, the subject of electro-hemostasis has been one of interest to the profession. The present volume, dealing with its employment in general and special surgery, is a supplement to the third edition of the author's work on diseases of women, and embraces a consideration of a number of new appliances and improvements in technique, which are the results of a more extended experience. It is well illustrated and written in a clear and graphic style. To the physician desiring to post himself upon this subject the work is most heartily commended.

Schleif's Materia Medica and Therapeutics. A Manual of Materia Medica, Therapeutics, Medical Pharmacy, Prescription Writing and Medical Latin. For the use of Students and Practitioners of Medicine. By William Schleif, Ph. G., M. D., Instructor in Pharmacy in the University of Pennsylvania. In one very handsome 12mo. volume of 352 Pages. Cloth, \$1.50, net. Lea Brothers & Co., Philadelphia and New York.

This excellent little volume is one of "Lea's series of Pocket Text Books," and affords a concise, systematic and up-to-date manual of Materia Medica and Therapeutics.

It will be of great service, as a ready reference, to the practitioner ; and is well adapted to the use of the medical student.

In addition to the paragraphs covering the Physical Properties, Physiological action, Therapeutics, and Toxicology of each medicinal agent, chapters are also found on Prescription Writing, Medical Latin, Medical Pharmacy, Practical Anesthesia, and Dietetics. The volume is concluded with Tables of Doses, of Poison and Antidotes, and Incompatibles. R. L. F.

Aneurism of Aorta in a Child.—Dr. Bertram Rogers (*Pediatrics*, 1899, Vol. VIII, No. 4) reports a case of aneurism in a child 10 years of age, which is of extremely rare occurrence.

On her admission into the hospital, her parents stated that she had been ill with heart disease for six months. There was no history of rheumatism, chorea, or scarlatina. She was very anemic, and a loud, rough, systolic murmur could be heard all over the cardiac area, being loudest over the pulmonary region ; a very distinct fremitus could be felt where the murmur was loudest. The heart's apex was displaced one inch outward. The other organs appeared to be normal.

The progress of the patient differed from any case of ulcerative endocarditis. The temperature was constantly raised, and no drugs seemed to have the slightest effect in reducing it. The murmur increased in intensity, being at times best heard over the aortic and at others over the pulmonary cartilage. The urine was normal, and at no time did any portion of the valves become detached in the blood stream.

About three months after her admission the child died suddenly of cardiac failure. The post mortem revealed the following conditions :

The pericardium contained some fluid, with flakes of recent lymph in it, and there was slight roughening of the visceral pericardium. The left ventricle was greatly hypertrophied, the aortic valves adhered together with large vegetations. About half an inch above the right side of the anterior semi-lunar valve of the aorta was a rugged hole about two-thirds of an inch long, passing upward in the direction of the artery. This was the opening of a small aneurism, which passed forward and appeared between the tip of the right auricle and the pulmonary artery in the auriculo-ventricular groove. The aneurism was about the size of a cob-nut, but appeared to be partially filled with clot. No disease was found in any other organs of the body.

R. L. F.

The Via Vitæ.—The *Medical Dial* for March cites the following :

"There are so many perils between the cradle and grave that it is a wonder that a man ever gets from one to the other," said an Irishman.

[He wouldn't if it were not for woman.—Ed. *New York Medical Journal*.]

[No, he would never get to the cradle without her.—Ed. *St. Louis Clinique*.]

"I don't see how it happens that you get the start of your business rivals so often," said the man to the prosperous undertaker. "Why, you must have nearly double the trade of any of the others." "Guess I do," said the man of caskets, frankly, "guess I do. Of course, mum is the word, but the fact is Dr. Cutter always gives me a tip when he is going to dig for appendicitis—and I'm invariably the first man to apply for the job."—*Cleveland Plain-dealer*.

Review of Medical and Surgical Progress.

Hydrophobia A Disease Easily Cured.—Dr. Benerly Oliver Kinnear (*Medical Record*, 1899, Vol. 56, No. 4) says, the testimony of symptoms in all the stages of hydrophobia, denotes nervous disease predominantly; while the injected conjunctivæ, the full strong pulse, the delirium and maniacal tendency, the hypersensitive retina and death by coma or convulsions, all signify to the writer a condition of hyperemia of the central nervous system.

The author during the past eighteen years has speedily subdued delirium tremens, acute mania and uræmia temporarily, by contracting the arterioles in the spinal cord and brain and making the general circulation active. Many cases of hysteria can be rapidly cured by expanding the general circulation, thus inducing good nutrition of the body, and at the same time withdrawing the excess of blood from over-stimulated nerve centres.

According to this evidence, then, hydrophobia may be due either to a poison absorbed, or it may be caused by constant direct irritation carried from the seat of the bite to the central nervous system, giving rise to hyperemia of nerve centres, and thus an increased function or abnormal action upon their part, inducing thereby all the symptoms of hydrophobia. The fact that there are in many reported cases and among the early symptoms, itching, pain, and heat at the seat of the bite, would tend to confirm the hypothesis that from the time of the bite by the dog there had been more or less constant direct irritation carried to the central nervous system. But the apparent truth which is brought out by the foregoing, to my own mind, is, that in all nervous forms of disease the main factor inducing the symptoms is active hyperemia within, and therefore excessive function of central nerve cells.

Does the pathology of hydrophobia bear out the above conclusion? The post mortem examination in man shows general congestion in nerve centres, and softening around the spinal cord.

Keisle says that the lymph glands are always enlarged in rabies. The under surface of the medulla is very vascular, the gray matter of the cord is hyperemic, the larynx is red, the spleen is dark red, the liver is congested.

There is also hyperemia of mucous membranes and of many organs and glands, which, in the author's opinion, may be due to excitement or hyperfunction of the vaso-dilator nerve centres, and that when conditions of hyperemia or inflammation are shown by post mortem demonstration to have existed during life, it is a proof that vaso-dilator nerve centres distributed to the part affected are hyperemic, and therefore, abnormally active.

The author draws the following conclusions: (1.) The majority of the symptoms denote central nerve cell excitement. (2.) Others testify to the writer, after many years of treatment of nervous diseases and conditions, that there is hyperemia of the brain and cerebral nerve centres. (3.) Treatment which will draw excess of blood from nerve centres, and at the same time make an active systemic circulation will subdue and cure nervous diseases, whether caused by poison absorbed, by terminal nerve irritation, by worry, pain, or over-exertion, mental or bodily. (4.) Pathological conditions evidence hyperemia of the brain and cerebral nerve centres, as well as hyperemia of organs and tissues, which may be due to the same central nerve excitement.

The author advocates the "Buisson" bath treatment. As an illustration of this method of treatment, Dr. P. Canitz, of New York City, reports five cases of hydrophobia treated by means of the "Buisson" bath.

In three of these cases convulsions had become so violent that the patients had to be strapped to their beds. In one case, in which the treatment had been delayed until after the fourth day of the attack, the patient was in the extreme horrors of rapidly approaching death.

Strapped to a steam lounge these patients were subjected to steam and hot dry air—the temperature being gradually increased until 140° F., was reached, then, still sweating profusely, they were wrapped in cold sheets, (wrung dry) and swathed in blankets, with hot water bottles applied to the feet and calves, and allowed thus to remain from one to two hours, when a tepid bath 90° or 92° F. was given, followed by a cold spray douche. The sweating process was repeated twice daily and the full pack daily, up to the period of convalescence. In all these cases the aggravated symptoms subsided during either the first or second application of the treatment, and after four or six days all signs of the disease had disappeared. In no instance was there a relapse.

The frequency of the bath must depend upon the severity of the symptoms; and the maximum rate of temperature must be regulated according to the facility with which the patient perspires. The head is kept cool with cold applications, and the patient freely supplied with cold water to drink, avoiding all alcoholic stimulants and adhering to a light farinaceous diet.

R. L. F.

[Hydrophobia is among us constantly, and the plan of treatment set forth above is certainly worth of a trial. We advise our readers to procure the original paper. A simple method of applying heat to the patient—in exact doses—is needed in testing this treatment in country places and such an apparatus is made by Betz & Co., of Chicago.—EDITOR.]

Treatment of Summer Diarrhœa in Children.—Dr. A. Jacobi (*Therapeutic Gazette*, 1899, Vol. XXIII. No. 8).

To avoid errors in hygiene and diet is the best preventive.

The debilitating influence of persistent summer heat should be counterbalanced by improving the vitality and powers of resistance in the young.

The gradual diminution of the temperature of the water used for dilutions may go on until after a few months the healthy infant bears washing and friction with cold water perfectly well.

The clothing should be thin. Cotton or thin flannel should be worn next to their bodies, both of which gradually absorb and give up perspiration. In very warm weather a single loose gown is sufficient. Their mouths should be anxiously watched, a teaspoonful or more of water being given after each meal. Plenty of drinking water should be allowed between the feedings, the amounts depending upon seasons and the temperature of the atmosphere.

As to feeding, it must be borne in mind that "cow's milk is not woman's milk," and not identical with it. Sterilization or pasteurization does not change its character, they merely obviate such dangers as result from the presence of most pathogenic germs and from premature acidulation. Amongst the causes of intestinal diseases, not only the quality, but the quantity of food should be considered. In cases of over-feeding, fermentation and putrefaction take the place of digestion, and gastric and intestinal disorders are the results. Summer diarrhœa is no pathological entity. It comprises all forms of diarrhœal discharges, from an acute intestinal to follicular enteritis, and streptococci and bacillary gastro-enteritis (Bookor, Escherich).

When any of the forms of enteritis are complicated with gastric disorder,

which is apt to show itself in nausea and vomiting, the stomach should be emptied. Irrigation of the stomach meets with little difficulty in the young. Salt solution may be used for irrigation, the temperature of the irrigating fluid should be that of the body when this is normal, cooler when there is great elevation, or warmer when there is reduction of the body temperature.

The intestines should be emptied speedily by purgatives and enemata of medicines which are to empty the bowels; castor oil, in doses of from one-half to two teaspoonfuls acts well. It should not be combined with an opiate, which finds its indication after the purgative has acted. Not only vomiting, but uncomplicated diarrhoea, indicates the withholding of food or drink for several hours; at this stage of the ailment no milk is permitted, neither breast milk nor pasteurized milk. Under ordinary circumstances milk feeds babies, but in these extraordinary circumstances it feeds bacteria. General collapse demands such stimulation as hot rectal injections of a few ounces of water with from one to five per cent. of whiskey, and subcutaneous injections of the saturated solution of the salicylate of sodio-cafein, from five to ten drops, or $\frac{1}{100}$ to $\frac{1}{50}$ grain of strychnin sulphate. In urgent cases the sub-cutaneous infusion (7-1000) of sterilized salt water (ten to sixteen ounces) may prove life saving. When the urgent symptoms of the diseases have disappeared if there is utter exhaustion, any of the salts of strychnin may be given in doses of one-sixtieth of a grain daily, in divided doses. During convalescence fresh air should be furnished, and a sojourn in the country be ordered; many a case which looked desperate will be quickly relieved and finally cured by cool mountain or sea air.

R. L. F.

Present-Day Requirements in the Management of Pregnant Women.—

Most busy practitioners—and all able practitioners, are more than busy, if they try to keep up to date—are unable to thoroughly sift the conclusions that are voiced by the vast number of papers on any and all topics on practical medicine which now flood the literature of the day. They are, if general practitioners, driven to head-line reading, or abstract skinning; and even then seldom get “court judgment” as to what is reliable and best. Obstetrics has undergone many changes of procedure of late, some of which are still lacking in definition.

In the care of pregnant women before labor, the most general and remarkable advances have been in the expansion of ante-partum examination and in consequence greater achievement in prophylaxis. There are no opposing parties on these matters. The obstetrician who poses as an expert, and does not employ early diagnosis and prevention, is unanimously regarded as incompetent.

Hemorrhage from placenta previa and eclampsia from—well whatever it may be—are the first dangers that should be given consideration when one is engaged by a pregnant woman. We will not catch many cases of placenta previa by early examinations, or before they declare themselves by a blood show. Many able minds have been busily engaged endeavoring to locate the placenta, with but poor results. Leopold has shown by observations in Cæsarean section when the uterus was exposed, that the Fallopian tubes lie more anterior than usual when the placenta is attached to the posterior half of the uterus, and, to a less extent, posteriorly when it is attached to the anterior half.

By the vagina we may sometimes feel the placenta when it is lying over the internal os. Patients with placenta previa should either be at all times (as in a hospital) within the *immediate* reach of a physician, or undergo induced labor.

In the prevention of eclampsia the latest views recognize that the disease is one of possibly special toxin development, but certainly the retention of poisons that should be escaping from the body through the eliminatives. Hence the practice of testing the urine for the reduction in the amount of urea excreted.

It is assumed, with very general approval, that while urea may not be the eclamptic generator, its lessened elimination bears much the same relation to eclampsia that falling of the barometer does to an approaching storm. Recent text-books, such as Jewett's and Hirst's, give excellent descriptions of the methods of testing the "urea wave."

The older tests for albumin, casts, and reduction in quantity, have lost none of their weight of importance as fore-signs of eclampsia. The most prominent adjuvant in treatment both for a threatened attack and one that supervenes is hot saline solution, or artificial blood serum. The usual solution employed is a $\frac{6}{100}$ per cent. solution of salt in hot water, which can be given most easily by injection into the colon through an eighteen-inch tube, and limited in quantity only by the ability of the patient to retain it.

This solution is now extensively used in cases of severe hemorrhage, and is probably the most valuable article in the nature of a remedy taken up by obstetricians in this generation.

Ante-partum examinations are of great assistance in the efforts we are all making to reduce the evils of mal-positions and dystocia. It is a perfectly conservative statement that fully one-half the improvement in the results from these difficulties is obtained where the obstetrician employs careful and skillful examinations before labor.

Diet has received more attention of late years than formerly, and the recent work of Schenk, who claims that sex can be made a matter of selection, in so far that if sugar shows in the urine a female may be expected, and that treatment excludes all trace of sugar, begun before impregnation, will result in male generation, has accentuated interest. Prochownick promulgated some years ago the claim that dystocia could be prevented by such diet as would lessen bone development and hardening, and fat formation in the fetus. Prochownick's theory has not received the consideration that it probably deserves, partly because it calls for an early observation of cases, which is prevented largely by the bad habit of many patients in delaying the engagement of their physicians for confinement. Schenk's claim has not yet been accepted by our leading investigators, as of course it could not be, for much time is required to test a method that calls for treatment for a *prospective impregnation*.

The numerically most important topic in obstetrics—sepsis—has only recently seen two important changes of view: First, in the matter of prevention, and second, in treatment. It is now accepted that the normal condition of the vaginal area is one of asepsis, and that the secretions are themselves germicidal.

Vaginal douching before or during labor is therefore quite generally not employed. But the introitus and vulvar surfaces are not aseptic and are not germicidal, hence they should be most carefully cleansed before any examinations are made. The best method of making digital examinations is to cleanse both vulva and one's own fingers, then hold the lips of the labia minora apart while introducing the fingers of the other hand. This method lessens the liability of carrying vulvar germs into an aseptic vagina.

Some vaginæ are in a septic condition and should be cleansed; but they

should be selected individually for douching and scrubbing, and not cause the clean ones to suffer.

In treatment of puerperal sepsis, we seem to be rather worse off than we thought we were a year or two ago. Anti-streptococci serum is practically discarded as useless, and no other article can be claimed as of specific value. Blood flushing with saline solution, local surgical cleansing and the old friends of the pharmacopeia are the most that can be mentioned. Peri-uterine packing with iodoform gauze after dissecting the cervix partially per vaginam is being tried, but no opinion can as yet be given upon its merits, its idea being that the lymph channels, the chief means of communication of the septic material with the uterine body and adnexa, are thus closed. —*Talks to Physicians by Edward A. Ayers, M. D.—Int. Medical Magazine.*

The Feeding of Infants.—When the mother has sufficiently rested from the hardships and fatigue of labor, her infant should be applied to the breast. This will be from four to six hours after labor, and, as a rule, the breasts contain a small amount of milk, enough to satisfy the child at this time. If the infant shows signs of thirst or is quite uneasy, it may be given a little water, a little milk and water (one part of milk to six of water), or if very noisy, a little good brandy very largely diluted with water.

The stomach of a new-born child holds but little, and therefore, it should nurse every one and one-half to two hours during the day time and every three to four hours during the night.

As the child grows older this interval between feeding should be lengthened, so that, at the age of six months, nursing will take place about every four hours, and small quantities of artificial food given several times a day. The time devoted to each nursing should not exceed twenty minutes and should be followed by a thorough washing of the nipples. There is no fixed age at which infants should be weaned.

The appearance of the canine teeth at about the fifteenth to the twentieth month is an indication of the child's ability to masticate soft food, and weaning may be begun. Weaning should not be done abruptly so as to force a sudden change of diet upon the child. It is advisable to defer weaning until after the summer months, especially in cities, because of the child's predisposition to attacks of bowel trouble during this period of the year.

It often happens that a child is deprived of its mother at or near its birth, and recourse must be had to artificial feeding.

The wet-nurse affords the most typical substitute for the mother in the feeding of an infant. If she cannot be obtained, some other food resembling as closely as possible mother's milk is obviously required. The only kind of milk most readily obtained and which resembles as closely as possible human milk is that of the cow.

This differs from human milk, being richer in butter, casein and salts, and containing less sugar and water. Milk from old cows is less nutritious than from younger animals and is also more liable to be diseased.

Milk from a herd is quite apt to be uniform in quality from day to day, while that from a single cow may vary daily, according to changes in her general condition.

It is advisable to boil or sterilize all food and drink given artificially-fed infants during at least the hot season of the year. Milk given an infant should be alkaline in reaction, and while milk from grass-fed cows is alkaline, that from barn-fed cows is acid, and should be made alkaline by the addition of lime water or soda.

* A uniform temperature of the milk at about 99° F. is most agreeable to the child's stomach.

This proportion should gradually change, so that at about ten months the infant receives the milk pure. An even tablespoonful of milk-sugar dissolved in boiling water and filtered, is the proper quantity for about eight ounces of food. This solution of milk-sugar must not be allowed to become older than one day at most. The regulation nursing bottle, sold at the shops, should absolutely be discarded in favor of an ordinary three, four, or six-ounce vial, according to the age of the child, and an ordinary rubber nipple.

It frequently happens that babies cannot tolerate cow's milk at all, even when prepared to resemble mother's milk as nearly as possible. Such children, as a rule, do well on condensed milk.

Whatever the food of an infant may be, if at any time it shows evidences of indigestion, or becomes affected with one of the different forms of diarrheal trouble, it is always best to introduce a change of food. This alone often corrects the disturbance. The mother may begin to menstruate during the early months of lactation, or she may become pregnant soon after the birth of her child.

In the former instance she may suffer such systemic disturbances as to change her lacteal secretion sufficiently to injure her child. The little one may have severe attacks of indigestion and even go into convulsions. Here a substitute must be employed during the days of menstruation, and a day or so thereafter a return to the breast may be made.

During this period of suspension of nursing, the breast-pump must be regularly used to keep up the secretion of milk. In the case of early pregnancy it will be necessary to wean the child entirely, both on account of the deranged condition of the milk, and also on account of the drain which lactation produces upon the mother.

Tuberculosis in the mother, or an inability to suckle her child on account of the wasting and debilitating effect it produces on her, are also reasons for weaning. Acute diseases in the mother do not necessarily call for weaning of the child, unless the disease extends over too long a period of time.

A fissured nipple or an inflamed breast may be the cause of severe digestive disturbance in the child. At the age of 6 months small quantities of farinaceous food may be given with the milk diet. Later, the softer kinds of solid foods, such as oatmeal, gruel, or rice, well cooked, and small quantities of beef broth may be added, so that at the age of from 12 to 15 months the food will be of greater consistence. Crackers and stale bread may now be boiled in water or beef broth and fed with a spoon. Small quantities of baked potato with butter and salt, and perhaps, a little soft egg, also agree well at this time. Vegetables should not be given during the first year of life, and sparingly during the second.

At the age of 2 ½ to 3 years all the teeth have made their appearance, and the child may now gradually acquire access to the general table.—*A. W. Kratzsch in Pediatrics.*

Acute Rhinitis.—Dr. W. Warren, of Detroit, Attending Laryngologist of the Children's Free Hospital, states that one of the combinations, which he has found to afford much relief in this affection, consists of a mixture of codeine sulphate, phenacetin, salol, and caffeine citrate. These various drugs are combined in varying proportions to meet individual cases, but always with the view of having small doses frequently repeated.—*Medical Age*, January 10, '99.

Publishers' Department.

A FAMOUS EXPRESSION.—Prof. Gibson, one of the pioneers in the development of scientific medical teaching in the United States, was asked by one of his students at the University of Pennsylvania, how to obtain a comprehensive, accurate knowledge of medicine that would enable the physician to make a correct diagnosis, and execute proper treatment. Dr. Gibson's reply has become inseparably connected with his name and memory. It was, "Principles, principles, principles." By this, of course, was meant that however varied were the manifestations of disease, they were to be comprehensively grasped only by a knowledge of the fundamental principles of physiology, pathology and therapeutics. The symptoms of disease, however manifold, could be intelligently interpreted only on this philosophic basis. Strictly consistent with this inexorable law is the fact that all conditions of depression and exhaustion of the system can be appropriately and effectively treated only by re-awakening the dormant and torpid nutritive functions. The crying need of the emaciated tissues and impaired vital functions is for food, the natural restorative. In most cases, however, there is not only an indisposition to take food, but the digestive organs are so enfeebled that they cannot digest and assimilate food—their functions are suspended.

The first indispensable step is to restore these functions. The ordinary tonics—iron, arsenic, strychnine, hypophosphites, etc.—fail entirely to accomplish this object. Cod liver oil is the heaviest burden on even the strongest digestive powers to prepare for assimilation; on the atonic stomach it is an irritant—it aggravates the existing troubles. The digestive organs must be gradually coaxed into a condition of restored functions; they need stomachic alteratives, tonics and stimulants.

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Penn's Successful Doctors.—The result of the examinations by the State Board of Medical Examiners, through which alone graduates in medicine may be permitted to practice in the State of Pennsylvania, has just been announced. The University of Pennsylvania makes the same extraordinary showing in 1899 as was the case in 1898. Of one hundred and forty-three students examined, only one failed, and the general average of the whole number was 86—an average far in excess of that obtained by students of any other school of medicine.

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As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, OCTOBER 20, 1899.

No. 8

1st com

Original Communications.

A New Method of Inflating the Middle Ear and Treating the Diseases Relating Thereto.

By LUCIEN LOFTON, A. B., M. D., Norfolk, Va.

President Seaboard Medical Association of Virginia and North Carolina.

IN October, 1896, there appeared an article, written by the narrator, relative to inflating the middle ear, and was couched in the following language: "A method that is simple from the standpoint of the specialist and patient alike, is a device for inflating the middle ear, which I herewith describe, together with the description I give the instrument and its use no doubt will be clearly understood. The instrument comprises one of the newer forms of stethoscopes with the chest receiver detached. In its stead a hard rubber flattened mouth-piece is substituted, the latter being placed gently, but firmly between the lips of the patient, while the ear apparatus is adjusted to his ears. After this is completed what remains to inflate the middle ear is simple lateral suction upon the part of the patient rapidly executed. The force thus generated from without inwards, and vice versa, causes the adhered drum to vibrate, if possible, or to swing to and fro. On a normal drum the force is so concentrated, as to cause great discomfort. Should you desire to inflate one ear, you can, by squeezing one or the other rubber tubes accomplish your desire. This manner of inflating the middle ear is considerably more reliable than is Politzeration Valsalva's method, the external ear pump, or the catheterization process.

The method I advise leaves no way for the air to escape only through the course intended. The ear pieces are supposed to fit snugly and firmly, and the suction which takes place is equivalent to several ounces of pressure.

If so desired by the specialist, patients may use this instrument alone.

Probably the most reliable stethoscopic attachment is the one suggested by Lewis Snofton. Every specialist in otology will fully appreciate the usefulness of this method of inflating the middle ear after one or two trials."

Since the above article was written I have treated and made permanent cures in fifteen cases of acute and chronic middle ear trouble. I do not say I have not used adjuncts in the shape of medicines, as tonics, but no other instrumentation has been tried.

A few weeks ago a gentleman from Johnstown, Penn., who is touring the Southern ocean resorts, applied to me for another trouble, and while talking to him I noticed he invariably turned the right side while in conversation. As long as he had not come to consult me for ear trouble I felt some hesitancy in asking him about his deafness, but he finally said by way of explanation that if I kept to the right I would not have to talk so loud, as he had been "losing his hearing" for the past two years. He could scarcely distinguish the tick of a watch pressed tightly against the ear, and it was with much emphasis he could hear me shout two or three feet away. Upon examination by electrical device, I noticed some impacted cerumen, which was removed by syringing. This, however, did not seem to improve his condition, but satisfying myself the disease was not external, I proceeded with gentle air massage to inflate the middle ear. After five sances he could hear a watch tick five feet, and could understand perfectly anything said in ten to fifteen feet of him, spoken in a moderate voice. To-day, while in my office, a whisper spoken at a distance of six feet was easily heard by the lately affected organ. He says he is improving all the time, and I believe this will be the means of adding another successful cure to my treasured list of fifteen.

I trust the profession at large, and especially otologists and general practitioners will have one of the devices made. Any instrument dealer can supply them, and those having the Snoton stethoscope can adjust the rubber mouth piece easily for ready use.

Old Age and the Modifications in the Course of the Ordinary Diseases When They Attack the Aged.

By MARVIN E. NUCKOLS, M. D.,

Lecturer on Medical Jurisprudence and Assistant Demonstrator of Chemistry, University College of Medicine, Richmond, Va.

[[N considering the subject of old age the question arises, is it a disease, as the older and, in fact, some of the more recent writers would have us believe, or is it a physiological condition? Before we answer this question we must determine what the normal physiological state is. If we take the functions of a healthy adult as a standard and compare them with those of an old man, or even the child, it is easy to note the most striking difference, not only in the physiological functions, but also in the anatomical structure of the organs. Since we do not regard childhood (a period when the functions are nearly as different from those of the adult as are the functions in old age) as a disease, why should we call old age a disease?

Old age may be defined as a modification of the normal condition (taking the adult as normal), in which all the functions of the organs are

retarded but acting in perfect harmony, and it is, therefore not a disease, for disease implies a rupture of relations or a lack of harmony, between the various organs; consequently we can only look upon old age as a normal phase of life, a period of slow and gradual retrogression towards death and as true a physiological condition as childhood or adult life. To make this clearer and more conclusive, let us observe for awhile the living being, following it through life. The essential characters of living matter are instability and power of attraction, or the power by which the cells are nourished or new ones produced. This power resides in and is an inherent property of the protoplasm of the cells, and by it the process of integration and repair is explained, and, by its diminution, disintegration and destruction; so it can be readily seen that this characteristic plays an important part in the maintenance of life.

A natural conclusion from the above, would be that living matter ought never to die, but should be immortal. It possesses a strong power of attraction, its instability enables it to accommodate itself to any environment, and its surroundings furnish all the material necessary for its maintenance. But cells in the course of their existence, become differentiated, that is, they are changed from the primitive type; they attain a higher degree of perfection; their functions are exalted; they become specialized, and, in doing this, they lose some of their power of attraction; their resistance is lessened; in other words, what they give in quality they lose in quantity. But, fortunately, all cells are not highly differentiated, and all do not reach their maturity at once. If they did, our lives might be shorter than what they are. The nerve cell is probably the most highly differentiated and is the first to wear out, other things being equal; while the connective-tissue cell is the least differentiated, and as a result enjoys a long and happy existence. This may be more clearly shown by an example. Suppose nervous tissue, or any other highly-developed tissue is worn out through use, or has accidentally been rendered incapable of performing its functions. It cannot replace itself, but is replaced by connective tissue, thus explaining the extent of sclerosis in old age. In connection with this, I do not think it will be out of place to say something of the *role* which connective tissue plays in the economy. It is the most widely distributed of all the tissues, acting as a support and protection for tissues more highly organized. It is of all the tissues the most capable of regeneration; acting the principal part in healing all wounds and injuries. When more highly developed tissue is worn out or destroyed it takes its place, or it may be converted into cells identical with those destroyed, and thus replace them. In this case, the connective-tissue cells seem, as it were, to forget themselves and assume the character and functions of their neighbors. Prolonged excitement due to hyperemia, hyperactivity of function and circulation of toxic blood will also cause its development. This process is constantly going on in later life, and we should not be surprised to find sclerosis of the organs of the body. When the noble cells, or highly differentiated cells, cannot be replaced in sufficient quantity,

and connective tissue begins to fill in the gaps, the functions of the organs are interfered with and senescence begins. It may be asked, why old age begins at different periods in different individuals. This is explained by difference in habits, temperament and diathesis, all of which affect the resistance of the cells. A person may inherit a strumous diathesis, in which the cells have little vitality from the beginning, little power of attraction and little resistance, and, as a result, are prone from the beginning to early degeneration and death. It is easy to understand why this person becomes old sooner than one who inherits no diathesis and lives a temperate life.

Various theories have been advanced from time to time as to the causes of senility but I shall mention only two to show how different they are from the present teaching:

The first is that the cause resides in the respiratory organs. The lungs perform their functions imperfectly, resulting in defective hematosis; the blood is not sufficiently oxygenated, and, as it is the carrier of nutrition, the organs and tissues suffer as a consequence. The second is that sclerosis is produced by arteritis, and this, in turn, by vitiated blood. By deductive reasoning, we come back to vitiated blood as the primary cause of senility, but no reason is given for vitiated blood.

The great objection to these theories is that they take effect for causes. All these conditions are the results of senility, as I have shown when speaking of the evolution and specialization of cells.

Now that it has been shown what old age really is, and how it is brought about, I will say something of it in its relation to the ordinary diseases.

The older writers tell us that there is a defective reaction in disease, and that the organs seem to become independant of one another and to suffer separately; in other words, the condition of a particular organ is not echoed by the economy as a whole, as in adult life. This is to a certain extent true, but when we study the conditions more closely we find it is more apparent than real. Consider the temperature in febrile conditions in the aged. To the touch, or if taken in the axilla, it is very much lower than that of an adult under the same conditions. The subcutaneous fat has disappeared and the circulation in the skin is poor, and as a consequence the skin and extremities may feel cold, but if the temperature is taken in the rectum it corresponds very nearly to that of the adult. That there is reaction in the aged is also shown by increased combustion in febrile conditions, manifested by an increase in the solids of urine; but reaction, while marked, is somewhat less than in adult life or childhood. The reason for this is that the functions are retarded. The organs which express and feel are slower to act. The whole condition is one of lowered vitality. The pulse is usually below seventy and is often intermittent, showing that the heart, is wearing out and needs rest. A pulse of 80 to 85 usually indicates some pathological condition, and, when noticed necessitates a thorough examination in order to discover its cause, while a pulse of 120, if it lasts any length of time, is almost certainly fatal.

The respiration is always increased, even when the lungs are not involved (but it is exceedingly rare to find an old person whose lungs have not undergone some change, either fibroid or emphysematous, or both), due to nature's endeavor, that hemastosis may go on properly.

The eruptive diseases are rare in the aged, because most old people have had them; still those who have never had them are not immune. The symptoms are never characteristic, the eruption is almost always absent, complications are more frequent, the heart, lungs and kidneys being especially apt to be involved.

Typhoid fever is not rare in the aged. The local symptoms are generally mild. The fever is of a low type; toxemia and depression are always marked, and convalescence is tardy and relapses frequent.

Bronchitis in the aged is very frequent, both on account of the conditions already present in the lungs—emphysema, sclerosis and dilatation of the bronchi—and the natural susceptibility of the aged to cold. It is apt to become chronic, especially in those who are gouty. It also shows a marked tendency to extend to the smaller bronchial tubes, thus jeopardizing life.

Pneumonia is probably the most frequent acute disease of old age, and kills more old people than any other disease. It develops in an abnormal manner, and is very insidious in its onset. The objective symptoms are not characteristic; in fact, the patient may present the symptoms of meningitis or no symptoms at all, and may even be going about when the physical signs of pneumonia are present. Therefore, when called to see the aged in winter, even if there are no outward manifestations of pneumonia, it is advisable to examine the lungs. The symptoms, when present, are slight, low fever, little or no pain, some dyspnea and marked cyanosis. Tuberculosis, once said not to exist in old age, is sometimes present, being usually of the fibroid type. In it there is little or no cough or fever, no night sweats—simply slow and progressive emaciation, with the physical signs.

Acute Bright's disease probably does not exist in the aged. The kidneys are always atrophied and degenerated; still the system accommodates itself to the condition, and the patient gets on fairly well until there is some disturbance in the economy; metabolism is increased, and the kidneys, being unable to eliminate the waste material, uremia results. This may be so light at times, giving rise to only headache and malaise, that we may be thrown off the track unless frequent examinations of the urine are made.

I might go on indefinitely with a description of the diseases occurring in the aged, but since I have spoken of the principal diseases common to other periods of life as well as old age, I shall conclude with a few remarks as to the care of the aged.

We should especially advise them with reference to diet, fresh air, exercise and clothing. The diet should be simple, but nutritious. The patient should aim to eat simply to repair, and as the functions are much reduced, very little is required to maintain life. They should eat as do children—often and in small quantities. The evening meal should be light and unstim-

ulating. We should caution them especially about overloading the stomach and allowing themselves to become constipated, as this is one of the most frequent exciting causes of apoplexy. Alcoholic liquors, if drunk at all, should be taken with caution.

Fresh air is very essential to the aged ; in fact, more so than at any period of life, because, on account of the condition of the lungs, hemastosis is imperfect. It is entirely wrong to keep an old man shut up in a warm room and allow him to breathe and rebreathe the same air. It is a common thing to find an old man, heavily clothed, drawn up by a hot fire, and dreading a breath of fresh air for fear of taking cold. The clothing should be warm, but light, and he should be made to take outdoor exercise every day.

When called upon to treat the aged we should make a thorough examination, especially of the lungs, heart and kidneys, for reactions in the aged are not marked, and some serious condition may exist without any outward manifestation. In all diseases we should test the urine from day to day, and should be ever ready to anticipate and combat the depression, so often seen in the course of diseases in the aged, by the administration of tonics and stimulants.

SELECTED PAPERS.

Collective Reports on Glycerinized Vaccine Lymph.

By ALBERT C. BARNES, M. D., Philadelphia.

The recent widespread epidemic of smallpox in the United States has necessitated general vaccination which has afforded excellent opportunities to determine the exact actual and comparative value of glycerinized vaccine.

For the past ten months I have been collecting reports from various infected districts in an effort to ascertain not only the actual value of glycerinized vaccine as a protective against smallpox but its relative value compared with vaccine points, quills, crusts, and the older methods of producing vaccination.

Other objects to be determined were (1) the value of glycerinized vaccine as a preventive of smallpox; (2) the proportion of successful "takes" in both primary and secondary vaccinations; (3) the relative frequency of complications, such as diffuse inflammation of the vaccinated area—cellulitis, lymphangitis, lymphadenitis, ulcerations, abscesses, etc.—which so often follow the use of vaccine points.

The methods of inquiry adopted in this investigation, were by circular letter and personal inquiry, by large numbers of physicians throughout the country.

In a certain number of cases where wholesale vaccination was practiced, as for instance by health authorities, exact figures could not, for various reasons, be obtained. However, in such instances, the reports were conservative and were none the less illustrative and convincing.

In Baltimore, where for several months there has been a number of cases of smallpox, there were employed by the health authorities and physicians in private practice considerable over 100,000 tubes of glycerinized vaccine. Those vaccinated were periodically observed until the success or failure of the vaccination was determined. In not a single instance did smallpox occur in a person vaccinated with glycerinized lymph. Conservative estimate places the number of successful "takes" as 95 per cent. in primary cases. The vesicles in most instances were typical and uncomplicated with staphylococcic and streptococcic infection. The number of excessively sore arms did not exceed one per cent. of the total number vaccinated.

In Minneapolis, in one series of 3,045 vaccinations with glycerinized lymph there were 29 failures, all of which were in secondary cases, *i. e.*, those who had been previously vaccinated. In the same city a second series of 3,875 vaccinations resulted in four failures in primary cases and in 51 failures in secondary cases. All the data collected from Minneapolis show a proportion of 95 per cent. successful "takes" in primary cases and 75 per cent. in secondary cases.

Cleveland records show that widespread vaccination was practiced. Both glycerinized vaccine and points were employed at the beginning until results proved the vast superiority of glycerinized lymph when points were almost entirely abandoned.

In one series of 20,000 cases vaccinated with the glycerinized product, there was an average of over 90 per cent. successful "takes." Septic complications were almost entirely absent.

In Richmond, Norfolk, and Portsmouth, Va., no accurate records were kept of results obtained, but in these three cities there were employed about 120,000 tubes of glycerinized lymph. Extensive inquiry concerning results obtained, place the successful "takes" over 90 per cent. In these cities the superiority of the glycerinized lymphs over the points, in producing successful vaccinations and avoiding septic complications, were everywhere noted. The experience of the health authorities and physicians in private practice in Norfolk, is particularly valuable. At the beginning of the smallpox outbreak, vaccine points of a standard make were employed extensively. In a large number of cases, smallpox in a virulent form occurred among patients who had been vaccinated with points. This shows that the inflammatory reaction, which took place at the site of vaccination, was due to staphylococcic infection and was not true vaccination.

From Philadelphia, Indianapolis, Chicago, Gloucester Co., Va., Pittsburg, Allegheny, Stanwood, Ia., Lisbon, Ia., and over 40 small towns throughout the country, responses to inquiry show that while no accurate records were kept the glycerinized vaccine, in comparison with points, had proved so superior in producing successful vaccinations (average from 90 to 95 per cent.) and in affording freedom from septic complications, that points had been largely abandoned in those places in which comparative tests had been made.

In Porto Rico, under the supervision of Dr. George G. Groff, Major and Brigade-Surgeon U. S. A., extensive vaccination was practiced. Vaccine points in this climate failed entirely while glycerinized vaccine yielded about 90 per cent. of successful vaccinations.

Dr. R. T. Hammond, Jessup, Md., had vaccinated 236 patients with glycerinized lymph and had but one failure; no excessively sore arms resulted.

A series of 70 vaccinations in private practice in Indianapoli, with glycerinized lymph, showed successful takes in all but one case. No septic complications.

Dr. F. V. Ely, Pittsburg, secured 36 successful takes in a series of 40 vaccinations with glycerinized lymph. This is remarkable, inasmuch as at least one-third of these cases were secondaries.

Dr. F. A. Crosby, Beach Ridge, N. Y., reports 100 per cent. successful vaccinations with glycerinized lymph in a series of 60 cases. Sore arms were not noted.

Dr. G. G. Rusk, Baltimore, vaccinated 360 persons with glycerinized lymph and obtained a successful "take" in every instance.

Dr. C. T. Matfeldt, Catonsville, Md., employed glycerinized vaccine in a series of 157 cases, 20 per cent. of which were secondaries; 155 successful vaccinations resulted.

Dr. D. W. Dodson, Nanticoke, Pa., reports that in a series of 250 cases he secured 100 per cent. successful vaccinations with glycerinized lymph.

Dr. J. R. Faust, Mann's Choice, Pa., vaccinated 130 school children and teachers, every one of which was successful.

Dr. A. J. Taylor, member Board of Health, Caribou, Maine, reports 200 primary vaccinations with 30 failures; of the latter 27 were re-vaccinated with 14 successful takes. This experience shows the value of revaccination in those cases in which successful result did not follow first vaccination. The average in this series of cases was over 90 per cent. successful "takes."

Dr. W. F. Beyer, Punxsutawney, Pa., vaccinated 300 cases, *primary and secondary*, and secured 98 per cent. successful "takes"—in other words there were but six failures.

A large number of other private reports show that glycerinized lymph yielded from 90 to 100 per cent. of successful takes in primary cases and from 60 to 75 per cent. in secondaries.

Conclusions: This investigation proves conclusively that the recommendation of the United States Marine Hospital Service that "glycerinized vaccine only should be employed" ("Public Health Reports," January 9, 1899) is well substantiated by experience, because:

1. Properly prepared glycerinized vaccine is pure and free from staphylococci, streptococci, and other pathogenic organisms which are invariably found (Copeman, Crookshank, Pfeiffer, Reed, U. S. A.) on vaccine points.

2. Glycerinized vaccine affords absolute protection against smallpox; vaccine points are uncertain in this regard.

3. Vaccination with the glycerinized products does not cause excessive inflammation of the vaccinated area. Cellulitis and inflammation of the lymph vessels and glands amounting at times to abscess formation is a not infrequent sequence of the use of vaccine points.

4. Vaccine points are apt to lead to a false sense of security, inasmuch as they induce a local staphylococcic or streptococcic infection which is entirely distinct from true vaccination. Such a result is not protective against smallpox.

5. A high estimate of successful takes from vaccine points, is by these and numerous other reports shown to be not over 60 per cent. in primary cases and a much lower percentage in secondary cases.

6. Glycerinized vaccine has been officially adopted by the governments and health authorities of the United States, Great Britain, Germany, France, Russia and Belgium. It should be universally adopted in private practice.

Hydrotherapy—A New Bath, Facilitating Its Use in Private Practice.*

By A. C. HAVEN, M. D., Lake Forest, Ill.

RESUME.

Brief history of the Use of Water in Medicine.

Prejudice against Water, and Reasons.

Physiologic Action of Water—Cold and Hot.

Therapy—All Hyperpyrexia, etc.

Contraindications.

Technic.

Exhibit of New Bath.

The remedy I wish to exalt to-day is no new substance, compounded in German laboratory by processes of synthesis, but an original product, direct from the hands of the Creator; utilized first by Adam, recognized and recommended by all the illustrious followers of Esculapius, to the present day; even used by the Great Physician, Jesus Christ, who commanded the leper to go bathe in the river Jordan and be made whole. Yet with all these unparalleled recommendations, water is largely neglected by the busy practitioner of to-day, for the easier prescription which the druggist may compound. One hundred years ago Cullen sang the praises of cold water, and Brand of Stettin, Von Ziemsen, and our own Baruch, and many others have fought nobly to win it a place in our pharmacopeia. But their success has only been partial. Why has it not been complete? Surely not because the remedy does not meet the expectations of those who give it a fair trial. But it is such a common, every-day remedy with such an ordinary name. Sometimes I think if it were given its chemical name of protoxid of hydrogen, it would rise in the estimation of the profession.

Then, for a long time it was utilized by quacks, who did not use it scientifically, and recommended it as a "cure-all," thereby prejudicing the

*Presented to the Section on Practice of Medicine at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

honest physician against it. Another cause of failure is because of a monstrous error which has deeply saturated the minds of the laity; and many otherwise learned physicians, too, are afflicted with the same paralyzing fear of "catching cold" from the use of water. The very remedy most potent in preventing colds is accused of producing them. Nansen and his crew had no colds in the Arctic regions. Only when they reached civilization did colds appear. Zymotic influences undoubtedly figure in their etiology. How absurd then to allow this illogical reasoning to deprive us of a powerful and beneficent remedy.

Sometimes I think a great part of the race are victims of true hydrophobia. I had occasion to recommend a bath to a patient recently and was electrified with the response: "I don't know as it would make any difference, Doctor, but there has not been a drop of water on my body for twenty years."

The more formidable objection is the *time* required for the proper use of this remedy. Many argue that water is all right for hospitals, where time is abundant, and helps many; but the fact that water is almost universally used in hospitals, argues that this remedy will accomplish what other drugs fail to accomplish, else why should hospitals go to all this trouble and expense? And a remedy which works such marvelous results in hospitals is a good thing for physicians generally to understand and use, and the chief purpose of this paper is to prove that the remedy can be applied to private practice without the loss of too much time, and without great inconvenience. I shall try to show how the patient in the country farm-house and the crowded city tenement may receive the blessings of this unequalled remedy.

Still another reason why the bath is not more often used by the private practitioner is a lack of appreciation of the physiologic action of such baths. To be sure baths are useful for cleansing purposes, and they also reduce bodily temperature, but baths are more potent as therapeutic remedies than that. Briefly, a cold bath stimulates all the nerve-centers, liberating new nervous energy, and thereby stimulating all the functions of the body and greatly improving the patient's resisting power against disease. The heart is powerfully strengthened, not weakened, as many suppose. The kidneys act vigorously after a bath, and experiment has proven the urine far more toxic after than before a bath, showing elimination of the poisonous ptomains. The lungs, too, do their part, as respiration is powerfully stimulated by the cold bath, increasing the supply of oxygen and the exhalation of poisons. The skin is another channel of elimination that is greatly augmented by the cold bath, and bed sores are far less liable to appear. In fine, the cold bath fortifies the patient in his struggle against disease, stimulating the vital functions and hastening the throwing off of the poisonous ptomains and their products. No other remedy can approximate it in usefulness at times. Nor do the baths inhibit the use of other therapeutic measures; they simply co-operate with them.

Hot baths, too, have their own distinct physiologic action, quite differ-

ent from the cold. The warm bath numbs the terminal nerve-fibers, rendering them less sensitive, and thereby producing a sedative action. Baths over 105 irritate the vasoconstrictors, resulting finally in paralyzing them, dilating the peripheral vessels and raising internal temperature.

As to therapy, all hyperpyrexiae are far more readily controlled by cold baths than by any other known remedy. Phenacetin and other coal-tar derivatives weaken heart action, if long used, and the patient merely dies with a normal temperature. Whenever delirium, restlessness and insomnia appear, the cold bath is indicated. Cyanosis and signs of collapse are urgent symptoms demanding the use of the warm bath with cold affusion over the head and shoulders, with gentle friction. This will often rescue the sufferer from the very jaws of death, in a manner unknown to any other therapeutic measure.

If, for any reason, I cannot use cold baths in typhoid fever, I confess I feel my patient has had only half a chance of recovery. The mortality has been reduced from 25 per cent. to almost nothing, when the baths are properly administered. In the last two years I have treated some forty cases without a single fatality.

It is in typhoid fever that the cold bath is seen in all its perfection. Its results are almost magical. Until some true specific, some antitoxin, is discovered, which will abort the disease, I shall continue the use of the cold baths in typhoid fever, in the belief that I am thereby giving my patient the safest and best treatment. Many lives might annually be saved, were this treatment more universal. I cannot understand why it is not the rule, the orthodox treatment in private, as well as hospital practice, unless it be that the busy practitioner feels he cannot spare the time and labor necessary. It is not as difficult as many suppose, and even if it were, the results warrant the extra effort.

The exanthemata have long been treated with the initial warm bath. Strange to relate, the cold bath, with friction, is far more effective in bringing out the rash, and, contrary to old ideas, will not suppress the eruption. When high temperature and marked nervous symptoms appear in the exanthemata, nothing approaches the cold bath in quickly benefiting the little patient.

You are all familiar with the sedative effect of the hot bath in uremia, in convulsions of all kinds, and in cerebrospinal meningitis, and of its benefit in rheumatism and many chronic complaints which time forbids me alluding to.

The modern treatment of pneumonia in children demands the use of the warm bath, which not only reduces fever, quiets nervous symptoms, insures sleep, but tones up the heart action, thus facilitating recovery greatly. Bronchitis, too, in children is greatly relieved by the timely use of the warm baths. The list might be extended, but my object is merely to show that baths are no mean power for good, and should not be neglected or rejected.

The contraindications to the use of the bath are far less than are usually

supposed. When rest is imperative, as in pleurisy, peritonitis, perforation or hemorrhage in typhoid, baths are best discontinued. A certain chilly sensation or even cyanosis of the body does not contraindicate their use, but cyanosis of the face is an indication of danger. Syncope may cause their cessation. Atheromatous cases and angina pectoris contraindicate hot baths.

As to technic, ten or fifteen minutes usually suffices, but one point I would emphasize in the cold bath, viz., *friction*, which is absolutely necessary, over the surface of the body, insuring reaction and preventing internal congestions. The neglect of this is fatal to the good effects of the cold bath.

I do not recommend the bath as a "cure-all." It is merely a powerful remedy in combating disease which I feel is not as generally used or appreciated as it should be. It is one of many remedies which should belong to every physician's armamentarium, be he hospital, city or country practitioner.

The bath I have devised is cheap, enabling many to use it. It is portable, no larger than an ordinary hand-satchel when folded, and can be carried by the nurse or physician. It can be operated by one attendant, as no lifting of the patient is necessary. It is simple, with nothing to get out of order. It consists of a canvas strap, encircling the head-board of the bed, the ends of the canvas belt fastened by a simple catch, so that the belt may be drawn taut, another canvas belt of similar design for the foot-board, two rings, twenty-six inches apart in each canvas strap, a rubber sheet hemmed at both sides, in which slip ropes, on the ends of which are four snaps. The patient is rolled on the sheet, the four snaps are caught in the four rings, and the tub is ready for the water. It is emptied by lowering one corner, and finishing with a small piece of rubber hose used as a syphon. When not in use it folds up in a small cotton bag.

A still simpler modification can be made with a rope tied firmly around a head-board, another around a foot-board, and two parallel ropes connecting them, and three yards of common table oilcloth, fastened by a dozen clothespins to the rope.

In my judgment, there is no excuse for the busy practitioner neglecting a remedy that will do for his patient what no other drug will do. My one wish in writing this paper is to forcibly call your attention to the fact that this common, everyday, despised, neglected, yet potent remedy, *water*, should be used, and can be used, by every physician who truly has the good of his patient at heart.

"Doctor," said he, "I'm a victim of insomnia. I can't sleep if there's the least noise—such as a cat on the back fence, for instance."

"This powder will be effective," replied the physician, after compounding a prescription.

"When do I take it, doctor?"

"You don't take it. Give it to the cat in a little milk."—*Tid-Bits*.

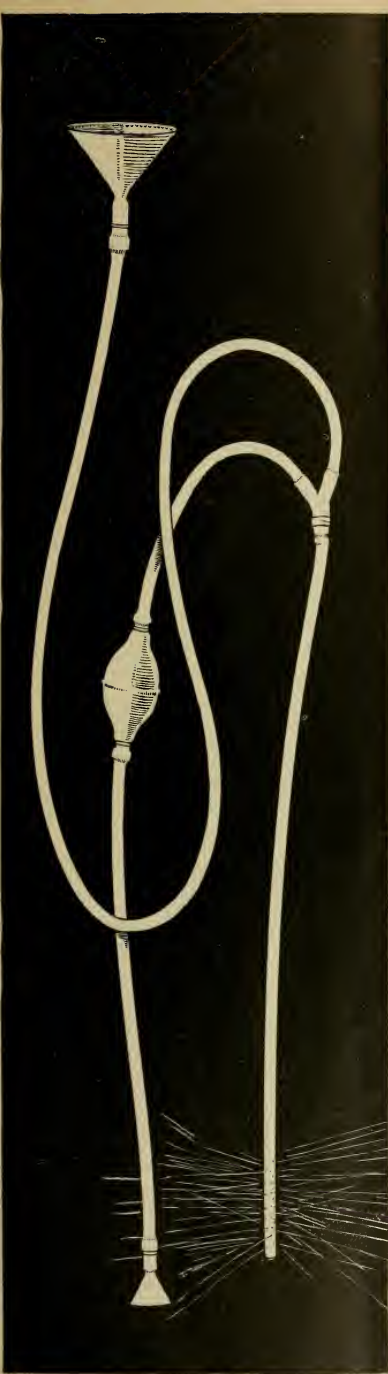
A Combined Stomach-Tube and Douche.

BY J. W. BELL, M. D.
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Physical Diagnosis, Univ. of
Minn., Minneapolis,
Minn.

The pressing need of a more satisfactory method of securing thorough gastric lavage, as well as a more efficient means of treating atonic conditions of the gastric mucosa and muscularies is my only apology for calling attention to a new combined gastric-tube and douche.

The instrument consists simply of an inflow tube equal in size to two-fifths of the lumen of the entire tube, ending in a perforated jacket. This perforated jacket, corresponding to the last four inches of the gastric end of the tube, contains some seventy-two very small openings through which the water issues in fine streams or a coarse spray with a force corresponding to the pressure or height of the column of water in the inflow tube. The outflow tube, corresponding in size to three-fifths of the lumen of the entire tube, simply performs the functions of an ordinary stomach-tube, draining the stomach of its contents, thus enabling the small streams issuing from the small openings in the jacket to come in contact with and thoroughly cleanse all parts of the gastric.

The perforated jacket is the only portion of the instrument original or new. This jacket proved a very troublesome prob-



lem for our rubber workers to solve, and allow sufficient space for the outflow. After many failures, extending over a period of nearly two years, they finally succeeded in making a satisfactory instrument. The following points are claimed for it:

1st. The instrument is simple in construction, durable and easily operated.

2nd. It enables the operator to thoroughly and efficiently cleanse and disinfect the stomach—an impossibility with the ordinary stomach-tube.

3d. By means of the intragastric douche we are able to stimulate and tone the gastric mucosa and muscularis.

4th. The intragastric douche, hot or cold, as indicated, is invaluable in the treatment of motor insufficiency and non-obstructive forms of gastric dilation.

Some Abuses in Nasal Surgery.*

By W. S. LATON, M. D., Minneapolis.

Professor Diseases Throat and Nose in the University of Minnesota. Member Minnesota Academy of Medicine and American Medical Association.

In discussing this subject of abuses in nasal surgery, I have no desire to criticise the surgical methods adopted by many of my worthy confreres, or to decry in any possible way the necessity for many such procedures. Yet, I feel sure that the review of half a dozen cases that have come under my observation during the year just past, showing the results of over-zealous and enthusiastic operators, cannot help but convince many of you that careful and conservative measures are quite as appropriate here as in other departments of surgery.

While admitting the importance and necessity for many of these operations, I should strongly condemn as unwise and imprudent the almost disastrous extent to which many of them are carried. You will readily perceive the wisdom of this criticism as we proceed, and you consider that all the abnormal conditions included in this discussion are of a non-recurring and non-malignant character. It is certainly apparent to you all that there is a broad middle ground between the ultra-conservative practitioner who believes in non-surgical interference, depending almost entirely upon local therapeutic measures, and the ambitious radical extremist who seizes all the bone, cartilage and connective tissue, whether innocent or otherwise, that has the hardihood to show the least prominence between the anterior nares and the vault of the pharynx. It will be my endeavor in this short paper to show the utter futility of the one, and to point out some of the dangers and serious consequences, of the other.

It is not an unusual occurrence with many of us, who are limiting our practice to the diseases in question, to meet simple cases that have been under treatment for months, and often years, where a resort has only been made to

*Read before the Minnesota State Medical Society.

the use of douches and sprays, never affording more than temporary relief, and in many instances aggravating the difficulty rather than relieving it. Especially is this true if the solutions used are of an irritating character, as they then invite an additional blood supply to the part, which produces a dilatation of the blood vessels, and in time results in the consequent deposit of connective tissue. It is in such cases that a proper conception of the diagnosis and pathological conditions should suggest intelligent and rational treatment, which would be of inestimable benefit to the patient, and the greatest satisfaction to the attendant.

I will now review the record of a few typical cases to better illustrate and emphasize the meaning I wish to convey, and, at the same time, indicate in a way the chagrin and embarrassment many of us would experience were we present when some lucky fellow discovers the inexcusable errors in our judgment and work :

CASE I. A. C. W. Male. Aged 32. Book-keeper in Minnesota for ten years. General health always good, except for the persistent and almost incessant blocking up of the nasal cavities, particularly when in a recumbent position. This condition continued in spite of more than five years, treatments with the most approved douches, sprays, and repeated applications of the cautery. Nothing ever seemed to afford hardly temporary relief. There was ever present a greenish, fetid discharge, which formed crusts, and were removed with difficulty, and for a year or more there was a constant ringing in the ears with apparent dullness of hearing. He consulted me, April 4th of this year, not for treatment, but rather for advice concerning a suitable climate to which he could go for relief from his distressing condition. When an examination was suggested, he strenuously demurred, saying that an examination always meant a new spray or an additional burning, and he had had quite enough of both. However, he reluctantly consented to a superficial examination, after assuring him that in order to give him any information of value regarding the selection of a climate, I should be obliged to know of his condition. This inspection revealed the following :

The anterior nares was very capacious, with mucous membrane over anterior portion of inferior turbinated bone thoroughly bound down by cicatricial tissue, as the result of frequent cauterizations. A dry, atrophic condition with the normal functions largely arrested. Loss of the sense of smell, due to the destruction of olfactory membrane in roof of nose. The septum was found to be straight and regular back to the extreme posterior portion of the vomer, where was found a striking deformity, which presented a picture when examined posteriorly, not unlike the letter S. The opening on either side would scarcely more than admit the passage of a probe holding the smallest piece of cotton, and the least congestion in this locality involving the mucous membrane covering the posterior portion of the inferior turbinates, would necessarily complete the stenosis. The existence of this malformation demonstrated beyond question the lack of comprehension of the previous operators, or what was infinitely worse, if the condition were

appreciated, was their gross negligence in failing to operate. My next difficulty was to convince my skeptical friend that he had anything left in his head to remove. The results following the use of the saw, bone forceps, drill and cautery were sufficient to convince him of the importance of the operation.

I trust you will pardon me for dwelling so long upon the details of this case. I can assure you I should not have done so, had I not realized how frequently these conditions are overlooked, and how easily and effectively they are handled.

CASE 2. Mrs. L. G. Aged 40. South Dakota. Housewife. First saw her in January of the present year. She complained of an inability to breathe through the left nostril; excessive dropping of mucous into the throat; partial closure of the left tearduct. Had been treated for several months at different intervals with various sprays, etc. At one time, a strong acid was applied with cotton, which occasioned great pain and distress with greatly increased discharge, which continued for several weeks, resulting in almost complete closure of the nostril. Following this, her faithful attendants resorted only to the copious use of douches, sprays and oils. My examination several months after showed extensive adhesions between the middle and inferior turbinates with the septum, effecting almost complete stenosis. The error in the conduct of this case was so apparent, that comment is hardly necessary. It is safe to assume that the result would have been reasonably satisfactory had the adhesions been regularly broken up, and the sloughs removed until the parts were entirely healed. The treatment in this case was so simple and effective that it is not necessary to relate it any more than to state that the obstruction was entirely removed with saw and forceps, and the relief was complete.

CASE 3. I. D. L. Aged 41. Residence, Minneapolis. Complained of partial stoppage of both nasal cavities; offensive and copious mucous discharge, with frequently recurring attacks of asthma. Had been treated as usual with sprays and douches, and in addition to this, large and long-continued doses of blood remedies had been poured into this poor man to correct the supposed existing blood disease. The removal of a large number of myxomatous growths from the nasal cavities was sufficient to relieve all the distressing symptoms.

CASE 4. S. E. Male. Aged 26. Residence, North Dakota. Applied for treatment in November, 1898. Complained of dry catarrh, with large accumulations of dry crusts forming in nose, which he could only remove after snuffing up water for some time. Gave a history of having been operated upon one year before, at which time large quantities of bone and tissue had been removed from both nostrils. Great relief was experienced for a few months, when this condition supervened, and an offensive odor developed. Inspection showed a cavernous opening and entire absence of the inferior turbinated in left nasal cavity, with the middle turbinated almost totally obliterated as the result of repeated cauterizations. The right side

presented a somewhat better condition, although it showed the results of great mutilation. I could offer but little encouragement in the treatment of this case, as the destruction of the parts had robbed the nasal cavities of much that was necessary to aid in its normal functions. The cavity left after the removal of the inferior turbinated bone was a receptacle for the accumulation of dust, small sticks and straws. The acute sensibility of the membrane was largely gone, owing to the atrophic condition which was rapidly developing, consequently the presence of foreign material was not appreciated until it interfered mechanically with respiration.

CASE 5. W. A. L. Aged 37. Merchant, northern Minnesota. General health robust. Received injury to nose when a lad by falling on the ice. Occasioned but little difficulty at the time, and was not attended by a physician. Since that time the nose has been somewhat deformed, and for more than ten years had experienced difficulty in breathing through right nostril. Had passed through the hands of several operators, and the condition of the organ when I examined it less than a year ago, proved conclusively the truth of his statement. The inferior turbinated on the left side had been completely enucleated, leaving a huge opening which was exaggerated by the concavity of the septum. The right nostril was almost completely stenosed by the convexity of the septum, and the hyperbrophied condition of the right inferior turbinated. Just why this afflicted side had been so noticeably slighted by so many willing hands, was difficult to explain, unless an operation here promised a less brilliant result. A straightening of the septum, and a slight cauterization of the right inferior turbinated cured the trouble, and gave ample relief to that side, but nothing could be done to the left nostril to fill up the capacious receptacle that must continue to exist.

CASE 6. A. W. Male. Aged 40. Had been treated over a long period of time with all the solvent remedies known to the profession. Finally found some one who comprehended the nature of the trouble to be a deflected septum, and who proceeded at once to correct the difficulty by removing a large section of the septum, and thereby producing a permanent opening between the cavities, which can never be repaired. This procedure afforded some relief, but I am sure you will agree with me that a less radical operation would have better served the purpose.

CASE 7. The seventh and last case to which I shall call your attention was extraordinary only in this—that a simple uncomplicated condition could possibly exist so long and avoid detection when so many were seeking an explanation for the obstinate and unusual symptoms. The case was a poorly nourished, anæmic, nervous little girl, scarcely five years of age, who was brought to my office by the mother, less than a year ago, and the following history elicited: The child was in perfect health up to something like two years before, when she developed a violent catarrh with very acrid and offensive discharge, without any previous illness. The discharge seemed more pronounced from right nostril, although both were involved. The whole lower part of the face was swollen and greatly disfigured, covered with an

unhealthy eruption, produced by the poisonous and acrid character of the secretion. Many solutions had been tried, only to aggravate the distressing condition. The nose was repeatedly probed and cauterized and large quantities of tissue removed without effecting any appreciable change. Alteratives and constructives were given with the same negative results. Finally the nose was curetted, or as the mother expressed it, "dug out." After several weeks of prostration following this operation, the nasal cavity assumed its usual condition of chronic discharge, but I judge with much less obstruction, as much of the redundant tissue had been removed. This very fortunate result afforded me the excellent opportunity of locating and removing the difficulty which I should perhaps not otherwise have been able to do. Passing a probe along the floor of the nose back toward the soft palate, I discovered a slight elevation which was hard and unyielding. I assumed at once that this obstruction was something foreign, or a malignant growth. In my effort to obtain a section for microscopic examination, the cutting forceps revealed an encysted mass, containing what proved to be corroded and disintegrated metal, and I have here in my hand, the head of an iron screw, all that was left to verify the nature and character of the disturbance. This, which was undoubtedly placed there by the child was the beginning of this trouble, some two years before, and was the source of all the subsequent disturbance. I have no word of comment or criticism for those who worked so diligently to relieve this condition, but will add that all the symptoms I could gather from the history of the case from beginning to end, pointed unmistakably to the presence of a foreign body.

Appreciating the fact that some of you may differ with me in your ideas of the management of many such connitions, I will, at the risk of taxing your patience, point out more definitely and explicitly, what seemed to me the most culpable errors and abuses in the conduct of these several cases, hoping that it may provoke comment, favorable or otherwise, which will be received with the greatest consideration.

The evident lack of comprehension of the condition of things in the first case was very greatly deplored, for had it been otherwise, and the excessive use of the cautery withheld, the normal functions of the mucous membrane might have remained unimpaired, and the posterior obstruction removed without appreciable detriment to the other tissues. Hence, I have no hesitation in condemning the use of the cautery, unless, perchance, it falls into the hands of one with infinitely more discretion and ability than was manifested in this case.

Much the same criticism would apply in the second case, where the escharotic was indiscriminately used over the middle and inferior turbinates, resulting in their extensive adhesions to the septum, all of which could have been avoided had proper precautions been adopted after the application of the acid. I should question the propriety anyway of using caustic acids in cases of this kind. It is always difficult to confine the application to a limited area, and always produces great discomfort to the patient by increasing

the pain and discharge. The Galvan-cautery or bone forceps, judiciously used in experienced hands, will be much more effective, with an absence of many of the distressing symptoms.

In the third case, it would be difficult to conceive how any observer, competent to use the nasal speculum, could possibly avoid finding the growths that partially obstructed the nasal cavities, producing the reflex conditions mentioned. Further comment is unnecessary, as no question could arise concerning the feasibility of an operation when such conditions exist.

The results in the fourth case, where were evidences of extensive surgical interference, showed conclusively that the work had been excessively overdone. While I concede the wisdom and necessity of removing the turbinates in extreme cases, and have seen remarkable benefits resulting therefrom, yet I am constrained, after recalling my observation of these and other cases, to sound a word of warning to those who rather recklessly and without experience resort to this procedure, when less radical means would effect greater relief with less possibility of unpleasant consequences.

As was demonstrated in one or two of the cases related, the great mutilation of the parts will frequently remove sensitive areas which are highly essential to the preservation of many of the normal functions of the nose, leaving in their place hard, cicatricial, impervious tissue, that is absolutely devoid of sensibility.

In the fifth and sixth cases where the septum was involved, the errors were so apparent, and the correction so simple, that it is hardly necessary to dwell upon them. Suffice it to say that I should always deprecate the removal of much of the cartilaginous portion of the septum, unless I was very positive I could approximate the surfaces after the removal. A large aperture in the septum is often unimportant, but it is always a receptacle for offensive mucus, and to a sensitive person, exceedingly disagreeable.

The failure to locate the foreign body in the seventh case, would, I presume, from a surgical standpoint, be considered reprehensible, but knowing something of the difficulties attending the examination and manipulation of a small child, I am inclined to be charitable, particularly when the foreign body is lodged well back on the floor of the nose, and the parts distorted from excessive swelling.

In closing I wish to state to those who follow this line of practice exclusively, that some of this work that I have reviewed, was not from the hands of experts, but rather from some of our professional brethren who do many of these operations on the side, simply for recreation and pastime.

If the presentation of these few cases, and the comments offered are of sufficient importance to awaken a little keener interest in this department of surgery, I shall feel that the object and purpose of this paper have been fully attained.

“There are just as good sea serpents in the sea as have ever been seen.”—
Puck.

North Carolina Medical Journal.

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Editorial.

SPECIALISM IN MEDICINE.

A recent Bulletin of the American Academy of Medicine contains several articles by specialists and general practitioners upon this much discussed subject. As usual the views expressed have been somewhat varied, but in the main it was admitted that the specialists were here to stay, not from artificial circumstances, but because they filled a necessary position in medicine. The opinion was pretty unanimous, however, that it was exceedingly unwise for a young man to rush into a specialty without having first done general work for a certain time, of variable length in the opinion of the different speakers. It was very aptly remarked during the discussion that the specialist is not made, nor born—he grows, and that the man who cannot succeed in general practice is not likely to do so in special work; the qualities which command success are alike in each instance. The excessive multiplicity of specialties was regarded as an evil which would probably correct itself.

The domain of medicine is now so vast that it is manifestly impossible for one man to keep up with the advancement along all lines, much less to become skillful in the treatment of all the ills to which flesh is heir, but a physician who confines himself strictly to the study of one class of diseases to the ignoring of the others will sooner or later realize that his medical horizon is very much contracted and his medical judgment narrow.

THE CHARACTER OF THE AUTHOR OF "SCIENCE AND HEALTH."

To the mentally balanced individual there are few things so calculated to arouse astonishment as the establishment and spread of so-called Christian Science, and the influence wielded over so many persons of seemingly average intelligence and common sense by it and its priestess, Mrs. Mary B.

G. Eddy. Meriting as it does, neither the name of religion nor of science, and utterly unreasonable in the absurd conglomeration of meaningless terms in which its extravagant claims are set forth, it has nevertheless become the fetish before which hundreds of deluded victims bow. Its spread among a civilized and cultured people is only another proof that human nature is ever the same, in the first as in the twentieth century; in the person of an educated American, and that of the ignorant savage.

We note a recent account in the lay press of a libel suit brought by a former disciple of Mrs. Eddy's for one hundred and fifty thousand dollars. It is set forth in the complaint among other things that this priestess of humanity not only claims to restore the sick and awaken the dead (for a money consideration) but that she from "motives of retribution and revenge," employs her alleged mental powers to produce sickness and death among those of her followers, or their families, who have waxed rebellious to her authority. It appears then that the author of "Science and Health" is not an unmixed blessing to humanity. The most surprising part is not the extraordinary claims made by this colossal egotist, but that at this period of the world's history there should be people who sincerely believe this sort of thing. We of the South are familiar with beliefs of this kind among the more ignorant class of negroes, but had not supposed that such an anachronism could find a congenial atmosphere in the vicinity of cultured Boston.

A Massachusetts paper has recently published the result of an investigation of the private character of Mrs. Eddy, which is doubtless a surprise to many people who have hitherto regarded her as a kindly fanatic. The article in question shows that this priestess of humanity is not only the possessor of great wealth, made out of the susceptible individuals who stand open-mouthed to swallow her stories, but is so vindictive and venomous in her hatred as to arouse the most superstitious dread, of her supposed occult powers, in the mind of her disciples. The newspaper conducting the investigation claims to have legal proof that instead of being in the robust health which is her boast, Mrs. Eddy is in reality a physical wreck, and is herself a victim of the morphine habit. A distinguished writer says that all the "mind sects except Christian Science have lucid intervals, in which they confess that they are not the equals of the deity."

Necrology.

Dr. W. B. Norment, of Rowland, N. C., died in September.

Dr. W. E. Turlington, of Benson, N. C., whose death occurred a few weeks ago, was a member of the State Society.

Dr. L. C. Reeves, of Blowing Rock, died of appendicitis, on October 7th.

Dr. D. S. Stanford, of Hamptonville, N. C., died on October 11th, of fever.

The Pullman Car Co. is being sued by a man who claims to have contracted consumption in a sleeping car.

Medical News and Items.

Kentucky Towns, along the Ohio and Kentucky rivers, are having almost epidemics of typhoid fever.

Free Medical attention for its employees and their families is being provided by The Washington Traction and Electric Co.

The University of Pennsylvania prints a Spanish edition of its catalogue to attract students from the Antilles and South America.

The Cosmopolitan for October presents the usual assortment of interesting matter. Mark Twain gives his experience with a Christian Science woman, who insisted he had no pain—that matter didn't exist except in the imagination—yet she sued him for substantial dollars when he gave her an imaginary check in payment for her services.

The Trustees of the University of Pennsylvania have appointed Dr. James Tyson to the professorship of the theory and practice of medicine, the position so long and honorably filled by the late Dr. William Pepper. Dr. John H. Musser and Dr. Alfred Stengel have been made professors of clinical medicine in the same school. All these gentlemen have been distinguished teachers in the university for many years, and all are well known to the medical profession as authors of standard text-books.—*Med. Age.*

The Medical colleges of Baltimore have decided that unless the city appropriates money for the maintenance of the dispensaries connected with them, these dispensaries will be closed. Prior to 1898 the city gave about \$1,000 annually to these institutions, the State giving double. For the current year the city has made no appropriation, the dispensaries having been kept open by the colleges. The latter will treat State patients in their hospitals as heretofore.

A Hospital. Burned.—The destruction by fire of the St. Vincent De Paul Hospital at Norfolk, Va., September 25th, was a most deplorable misfortune, since there was not only the great property loss to the hospital, but there were four persons burned to death and four injured more or less seriously. Among the killed were Miss Pippin, of Tarboro, N. C., who was there for operation, which was to have been performed the next day, and Cherry Boswell, a three-year-old child from Lewiston, N. C., who was undergoing treatment for club-foot. Two firemen and two nurses were seriously wounded. The loss is estimated at \$500,000, with \$33,000 insurance. It is probable that the hospital will be rebuilt.

Dr. J. Ackerman Coles, of Newark, New Jersey, has presented to Jefferson Medical College, Philadelphia, the following gifts, in recognition of the love and high regard entertained for the college by his father, the late Abraham Coles, M. D.: a beautiful Carrera marble portrait bust of William Harvey, the discover of the circulation of the blood (of heroic size, this bust and its pedestal were executed at Rome, Italy, in 1869, by the distinguished sculptor, Horatio Stone); The Works of William Harvey, M. D., physician to the King, translated from the Latin, with a life of the author, by Robert Willis, M. D.; a bronze medallion life-size portrait of Abraham Coles, and an imported life-size bronze copy of the celebrated Roman antique statue of the boy extracting a thorn from the sole of his foot.

Book Reviews.

Progressive Medicine—Volume III.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 11 illustrations. Lea Brothers & Co., Philadelphia and New York.

The third volume of "Progressive Medicine" is fully up to the high standard of the preceding volumes. The present volume contains a section on "Diseases of the Thorax and its viscera, including the Heart, Lungs and Bloodvessels," by William Ewart, M. D. F. R. C. P. On the "Diseases of the Skin," by Henry W. Stellwagon, M. D. On "Diseases of the Nervous System," by William G. Spiller, M. D., and on "Obstetrics" by Richard C. Norris, M. D. The editor and publishers are to be congratulated upon the excellent character of this publication and we take pleasure in again recommending it to the profession.

A Text-Book of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease.—For the use of Students and Practitioners of Medicine. By ARTHUR R. CUSHNY, M. A., M. D., Aberd., Professor of Materia Medica Therapeutics in the University of Michigan Medical Department, Ann Arbor. In one handsome octavo volume of 728 pages, with 47 engravings. Cloth; \$3.75, net. Lea Brothers & Co., Philadelphia and New York, 1899.

This is an excellent work on a subject upon which the members of the medical profession are in need of special enlightenment. The author defines pharmacology, as "the study of the organism rendered abnormal by drugs," differing from therapeutics, which he defines as "the art of applying drugs in disease." The scope of the work will thus be apparent.

As a knowledge of the physiological action of drugs exhibited in disease is necessary for their scientific application, the value of this treatise becomes evident, for a knowledge of the action of remedies in health is needful in order that diseased conditions may be properly modified and abnormal functions be directed into normal conditions.

It is a book which should be in the possession of every physician who prescribes medicines, because of their physiological effects, rather than because they are reputed to cure certain diseases.

Minor Surgery and Bandaging.—By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (4th) Edition. In one 12mo volume of 594 pages, with 502 engravings, many being photographic, Cloth, \$3.00 net. Philadelphia and New York. Lea Brothers & Co.

This excellent work, now in its fourth edition, has met with merited appreciation at the hands of the profession. It contains in brief and concise form information upon a variety of subjects that are of daily use to the physician; besides which the present edition includes a chapter on surgical bacteriology and a section descriptive of the various major operations which can be practiced with advantage upon the cadaver, such as amputation, ligations, excisions, introduction of sutures, intestinal enostomosis, tracheotomy and intubation and operations upon the bones, tendons and nerves. It is needless to say that these additions add greatly to the value of the present edition, both as a ready reference work for physicians and a handbook for students.

Southern Surgical and Gynecological Association.—*Transactions*, Vol. xi., 1898.—As usual, this is a handsomely bound volume, covering over

five hundred octavo pages. The papers appearing in this volume have appeared in the various medical journals. They are from the pens of some of the foremost medical men in the South. A striking feature of the Memphis meeting, is that there were thirty-two members in attendance and thirty-two papers presented.

What a Young Husband Ought to Know.—By Sylvanus Stall, D. D. Vir Publishing Co. Hale Building, Phila., Pa. Price, \$1, net.

If marriage is a divine institution, if the tenderest and most sacred relations of life cluster about the family and the home, then no words of praise can be too strong with which to commend this exceptional book. Its author shows himself capable and courageous. Its paragraphs are candid and clean. In these pages the author lifts the sacred relations of married life out of the impure and vile thinking which have degraded manhood, debased and debauched womanhood and robbed marriage and home of the blessing and happiness which God intended. The author has treated the most delicate and sacred subjects with that same ennobling force which characterizes the preceding books of the series, addressed to boys and to young men, and which won for these books unsolicited and hearty commendation at the international convention of the Young Men's Christian Associations at Grand Rapids, Michigan, and at Mr. Moody's World's Students' Conference at Northfield, Massachusetts.

The *Literary Digest* of October 7th, devotes several pages to "Admiral Dewey's views on matters in the Philippines," and also contains several able articles on "Judges and Campaign Contributions." The conviction of Captain Carter also receives attention, and the views "pro and con" regarding the recent announcement that women would no longer be admitted to employment in various departments of government service, throw side lights on the matter: "Dime Novels and Crime," "Insanity in Kansas," "Wrecking a Bridge by Electricity," "Has the Biblical Ophir Been Found?" "Sexual Knowledge for the Young," and many other interesting items make up the contents of this most excellent publication.

THIRTEEN DOLLARS FOR FOUR DOLLARS.—A book the price of which when originally published was twelve dollars alone and a year's subscription to the New York *Lancet* (Address 156 Fifth Ave., New York) is offered for four dollars. The book is Flint's "Encyclopedia of Medicine," a work covering practically every subject in medicine.

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Review of Medical and Surgical Progress.

An Epitome of Surgical Progress.

By JOHN H. GIBBON, M. D., of Philadelphia.

Interscapulo-thoracic Amputation.—By Robt. G. Le Comte, M. D., of Philadelphia (*Illustrated Annals of Surgery*, for Sept. 1899).—The author discusses the various methods which have been employed in removing the entire upper extremity for disease, and then describes a new method which he found very successful in the case reported. The great danger of the operation is, of course, the loss of blood, and the methods formerly used for the prevention of hemorrhage are nine. (1) Simple compression of the subclavian vessels; objectionable because of its uncertainty and the danger of allowing entrance of air into the vein. (2) Resection of a portion of the clavicle and compression of the vessels; previous objection applies here also. (3) Formal ligation of the subclavian artery, as a preliminary step; both difficult and tedious. (4) Formal ligation some time previous to amputation; same comment as for No. 3, and the danger of gangrene if too much time intervenes between ligation and amputation. (5) Resection of middle portion of clavicle and ligation of artery, the vein being left unsecured until just before it is divided; here there is danger of wounding the vein during the operation. (6) Ligation of the artery and leaving the vein and brachial nerves to the last tissue to be divided. Same comment as for No. 5. (7) Beginning at the scapula and working forward leave the great vessels until nearly the close of the operation. This would give the greatest amount of hemorrhage, as the supply of blood is not cut off from field of operation. (8) Resection of middle portion of clavicle with ligation of both artery and vein. This is the most generally recommended and employed of all the methods. By referring to the experience of operators who have employed this method (Macnamara, Lund, Von Langenbeck, Keen, and others), he shows that the operation is not altogether satisfactory. Difficulty is often experienced in the resection and also in finding the vessels and ligating them promptly. Keen, for instance, found this procedure to take up more time than the amputation itself. The sawn end of the clavicle is always liable to injure the ligated vessels during the following manipulations and in malignant diseases of this bone it is much safer to remove it altogether. (9) Disarticulation of the sternal end of clavicle with compression of the vessels. This was done in 1837 by Mussy, but has subsequently been condemned by all authorities, because the operator had the misfortune to have air enter the vein, after the amputation was completed and before the ligature was applied.

(10) This is the method of the author, first to disarticulate the sternal end of the clavicle and then to ligate both artery and vein. This procedure was followed in the present case with most satisfactory results.

The patient, a man, aged 49, had suffered from an osteo-sarcoma for three and a half years, during which time he had undergone two operations for its removal. At the time of admission to Pennsylvania Hospital he had a large fungoid mass involving the left shoulder, both soft parts and bone. At a previous operation Dr. Ashhurst had removed the acromion and a portion of the clavicle.

The patient was a hard drinker, had lost a great deal of flesh and suffered frequently from hemorrhages from the growth which, at the time of his admission, was ulcerated.

The operation occupied one hour and six minutes. The disarticulation of sternal end of clavicle and the ligation of vessels was not difficult. He ligated first the artery and then, allowing the blood in the extremity to flow back into the general circulation, the vein was ligated. During the rest of the procedure there was little or no hemorrhage. The patient made a good recovery, being out of bed on the ninth day.

(It was my privilege to witness the employment of this new method of controlling hemorrhage in this amputation, and I can endorse it most heartily. Within the past few days I have seen the patient, six month's since his operation, and he is perfectly well, being regularly employed in running an elevator.—J. H. G.)

Vaginal Celiotomy: Its Scope and Limitations.—By J. Riddle Goffe, M. D., of New York (*Medical News*, Oct. 7, '99).—In this article the author strongly advocates the vaginal route in operations upon the pelvic organs of the female. He calls attention to the gradual perfection of the technic of this method, so that it is no longer used simply to puncture and drain, and for complete hysterectomy, but, that nearly every operation upon the uterus and its appendages can now be performed per vaginam. He uses the anterior incision almost entirely, making the transverse cut across the vagina and then a longitudinal one through the anterior vaginal wall, thus making the separation of the bladder easier and giving more ample room for work. He mentions the fact that no bladder disturbance follows this operation, and says the wound always heals promptly. During the past three years he has used this method in every case, excepting three, that he has operated upon, and for nearly every condition found in the female pelvis. He refers particularly to the ease with which the cases of retroversion can be handled through this incision—that the adhesions can be separated, the uterus and appendages easily brought into view, and the round ligament shortened. Even large cysts of the ovary when not adherent to intestine can be tapped and removed through this incision. The author speaks of one case of this sort where he injured the sigmoid flexure very extensively and had to go into the abdomen above and do a resection, but the patient recovered satisfactorily. Besides claiming for this method a better access to the organs diseased, he also says that the shock is less than in abdominal section and, of course, there is no apparent disfigurement and little or no tendency to hernia.

(The vaginal route for operations upon the female pelvic organs has not been so extensively employed by the gynecologists in Philadelphia as it has in New York, and it is not thought to be as safe as the abdominal route, except in the hands of experts.)

A New Method of Reducing Old Dislocations of the Lower Jaw.—By Theodore A. McGraw, M. D., of Detroit, Mich. (*Medical Record*, Oct. 7, '99).—The author reports a case of dislocation of the jaw of five months' standing, in which reduction, under anæsthesia, had twice been unsuccessfully attempted, although every recognized means was employed, except operation. One week after the last attempt he made an incision below the zygoma on each side, separated the fibres of the masseter muscle, passed over the sigmoid notch a steel hook, especially devised for the purpose, and after prolonged traction downwards and backwards, with additional upward pressure, made by an assistant, on the chin with corks placed between the molar teeth of the two jaws, he was finally successful in obtaining the reduction. Patient had complete restoration of function. The author claims originality for this method of making traction with a hook passed over the

sigmoid notch, and it will certainly commend itself to any one having to deal with this very obstinate and rather rare condition of old dislocation of jaw.

Three Abdominal Sections In the Same Woman Within Five Years.—S. W. Pryor (*Georgia Journal of Medicine and Surgery*, August, 1899), reports this unique series of events. At the first operation, done in June, 1893, a four-and-a-half-pound pedunculated fibroid tumor was removed, the stump being treated extra-peritoneally. Five years later (July, 1898), a Cæsarean section was successfully performed for obstruction of birth canal by another fibroid tumor. The tumor and uterus were not removed on account of the patient's general condition. The tumor continued to grow and its removal became necessary in three months, a supra-vaginal hysterectomy being done in September, 1898, followed by good recovery.

H. A. R.

Uterine Hemorrhage.—Langstaff (*Brooklyn Medical Journal*, October, 1899), calls attention to the fact that curetting or plastic operations on the uterus often fail to relieve bleeding from this organ. The source of the hemorrhage must always be carefully sought for. The prime factor in the etiology of the cases where curettage fails, may be found in abnormal or diseased conditions of the uterine adnexa especially, or only in that of the ovary. A case is mentioned in which the writer curetted a patient for metrorrhagia, caused by retention of placental debris after an abortion. Hemorrhage ceased for a day, but recurred two weeks afterward when preparing to curette again. The woman complained of pain in the lumbar and hypogastric regions, and on examination a prolapsed and sensitive ovary was found in posterior cul-de-sac. A boro-glyceride tampon was applied with the patient in the knee-chest position on two successive days and the hemorrhage ceased, while two weeks afterward, no trace of the ovary could be found on ordinary palpation. The conclusion is reached that the retention of placental tissue caused the bleeding in the first instance, and that in the second, it was caused by the stimulus given by an acutely congested ovary.

H. A. R.

Fracture of the Patella.—Estes (*International Jour. of Surg.*, Sept. '99), in a series of articles on fractures, protests against dogmatic statements to the effect that the non-operative treatment of patellas fracture is unsatisfactory and unscientific. He has treated 15 cases with good functional results in each and, in several, bony union. Every case of fracture of the patella should be individualized. Treatment is (a) mechanical or (b) operative and depends upon the degree of separation of the fragments and their condition, the degree of effusion, amount of injury to soft tissues and complications. He thinks the operative treatment should *not* be the rule and should be employed by men with only the best technique. Many failures are reported and 2 per cent. of the cases collected by Powers died after the operation. A compound fracture of the patella is an invitation at once for suturing the fragments. Mechanical treatment is indicated in any simple fracture, with no excessive effusion, moderate separation and tilting of fragments; old age of patient, serious complicating injuries and especially, conditions and surroundings which will not admit of thorough asepsis.

H. A. R.

Plastic Surgery.—(*The American Gynæcological and Obstetrical Journal*.) Surely no branch of gynæcological work is so frequently indicated by the pathologic conditions to which women are subject as this, and with equal

certainly may it be said, that none has been so neglected by gynæcologists, none so little understood and appreciated and none in which experts are so few. Owing to the immunity from a fatal result which the conditions of plastic surgery generally carry with them, the bungling failures and the consequent suffering inflicted upon patients in its name, only partially reported though they be, are appalling. Certainly it is no exaggeration to say that, were a tenth part of the ignorance of principles and technique turned into practice in abdominal operations, the humane sense of the profession would forbid the performance of laparotomy.

Let us consider for a moment the attitude of gynæcologists towards plastic surgery. It is interesting and instructive. First, among the younger men it is very, very rare to find one who will hesitate a moment to undertake any recognized plastic operation, even though he have never seen a similar one done and is avowedly without experience in such work. Though profoundly ignorant of why such an operation is indicated in such a case, and totally oblivious of the mechanical difficulties involved, it is sufficient for him that such operation has been declared as the indication for the pathological condition which he recognizes. He does the best he can under these untoward circumstances and feels justified.

The attitude of the older men, who have themselves gone bravely through the stage just described, is quite the reverse of this. To many of them one thing has become very clear: either they have failed to meet the expectations of plastic surgery, or it has generally failed to meet theirs. Very naturally the latter horn of the dilemma is almost universally adopted, and this aspect of the question is to-day openly taught; as we have already had occasion to point out in some recent editorials. Thus, plastic surgery is described as "Minor Surgery," for its belittlement, and receives the grudging acknowledgment that it is sometimes a necessary makeshift for those common and very frequent conditions for which it and it alone is the indication. But the stronger and more positive minds are not satisfied with seeing an indication whose neglect is a standing reproach. Unable either to fulfill or to obviate this indication, they have gone abroad, like certain industrious members of the animal kingdom, for means to bury it out of sight and leave a clear road. To this endeavor we owe the adoption of Alexander's operation and all the various methods of suspension for prolapsus uteri due to laceration of the pelvic floor. To the same category belong Lefort's operation and others of similar purpose. But of all these methods the most straightforward and logical, whose ideal simplicity indeed never ceases to excite our admiration, is vaginal hysterectomy for prolapsus uteri. It is most ingenious and admirable—from a certain standpoint. At one stroke it removes not only the disease but the indication as well. It settles the question and leaves nothing to be said—or done.

Yet, while this truthfully depicts a very large number of gynæcologists, who stumbling over plastic surgery in their youth have bungled it through their middle years till the irritation of shame has forced the cry of failure, we must not forget that there is another moving as steadily in an opposite direction. There we may see men who seriously undertook the study of plastic surgery in the outset of their career, and who, recognizing the difficulty of acquirement, have earnestly devoted themselves to the mastery not only of the mechanical knowledge necessary, but to the special technique. Such men now count upon the certain results of plastic operations with almost mathematical accuracy. They may predict with certainty not merely a symptomatic cure but an anatomical one. And the indications in

the disease is squarely met and completely fulfilled. It is neither ignored, covered up, nor ablated.

Consider the requirements of the expert plastic surgeon. He must have an exact knowledge of the anatomy and pathology of the pelvis, and a correct comprehension of its physiology. His extensive mechanical knowledge must be instinctive as well as acquired, for no two cases present exactly the same conditions to be remedied by plastic work. He must have years-acquired facility in using his instruments—a combination of strength, endurance and great delicacy of manipulation. He must have an abiding sense that his aim is not to remove but always to restore. And finally he must love his work for the opportunity it affords him to restore a mutilated part almost to that perfection which it originally received from the Master Hand.

It is this realization of the great and peculiar requirements necessary to the making of a plastic surgeon in fact, which endows this special work with a dignity possessed, in our opinion, by no other branch of gynecology.

Formalin in the Treatment of Sweating of the Feet.—The employment of Formalin in the sweating of feet was recommended by Orth as early as 1896 (*Berl. Klin. Wochenschr.*, No. 13), and also in Liebreich's Encyclopædia the value of Formalin is pointed out under the heading, "Sweating Feet." These recommendations refer to the employment of only very dilute Formalin solutions. Orth recommends to sponge the feet morning and evening with a weak Formalin solution (1 tablespoonful of the official Formalin to 1¾ pints of water), but in this mode of employment the deodorizing property of Formalin is only carried into effect. By this means the disagreeable odour is removed, although only for a short time; removal of hyper-secretion, and its consequences, maceration of the epidermis, &c., does not take place. Recently, Staff-Surgeon Dr. Gerdeck (*Deutsche Militarärztl Zeitschr.*, No. 4, 98) has carried out experiments with concentrated Formalin solution on soldiers, which have led to very favorable results.

When using strong Formalin solutions, besides the deodorizing and antibacterial properties of Formalin, its action upon albuminous substances is also shown, that is, on substances containing gelatine and keratine, with which it forms insoluble compounds, after drying horny combinations which resist decomposition and the influence of water. After painting a certain portion of the skin, the secretion of sweat of this place diminishes considerably, the skin becomes dry, and the cracks and furrows are shown more markedly than before. After the skin has been painted two or three times it becomes shiny, shows cracks and furrows still more, becomes dry and leather-like, and the secretion of sweat is so completely removed that, even in a Turkish bath of 45° to 50° C., lasting half an hour, it is not possible to produce perspiration. If the painting is continued, then the effect penetrates deeper, the epidermis shows cracked wounds, which continue to the superficial layer of the cutis. They are painful, and apt to bleed if an attempt is made to scale them off; then a scaling process begins, which is at its highest thirty days after the painting took place, and even after fifty days it is not quite finished. If the painting has been done more than three times, then it is, even after fourteen days, not possible to produce secretion of sweat in a Turkish bath. After about three weeks, slight secretion can be observed, in a Turkish bath, which, after six weeks, does not reach the height of secretion present before painting was started.

The treatment is as follows:

In the morning, midday, evening, and the following morning, the skin

of the sole of the foot and heels are painted with official Formalin (by means of a brush, with a long handle for the protection of the hands), using for the whole process, at an average, $2\frac{1}{2}$ drachms of Formalin. The skin of the toes on the extensor side, and intervening folds of toes, should only be painted twice, in order to avoid on this tender skin cracks of the epidermis. The sweat secretion ceases mostly after the third, always after the fourth painting. The disagreeable odor disappears, the skin is hardened and dry. If disagreeable odour or secretion is still present between the toes, painting once or twice with a 10 per cent. solution of Formalin will be found sufficient to remove it. When this treatment is completed, the boots of the patients should be disinfected by dropping into each boot 4 to 6 drops of concentrated Formalin. About three weeks after the painting has been discontinued, slight secretion of sweat will be noticed, which increases gradually. Two or three months after, a relapse takes place, which, however, seems to be milder than the first attack. If weaker Formalin solutions are used, the painting should be done more frequently. The deodorizing action can even be observed with a 3 per cent. solution, but only from a 5 per cent. solution secretion is influenced. The Formalin treatment has the great advantage over the usual chromic acid treatment of being harmless, because Formalin is non-toxic; relapses also occur later than after chronic acid treatment.

To use Formalin dusting-powder in place of painting is not suitable, because an even distribution and influence upon the diseased part cannot be obtained. A 3 to 5 per cent. powder, however, does excellent service when dusted into the stockings, by which the smell of sweat is completely removed. —*Therapist, Aug. 15, '99.*

Picric Acid in Superficial Burns.—MacDonald (*British Medical Journal*, May 13, 1899), states that it is obvious that an antiseptic which, by its mode of action, directly promotes rapid healing will give the best results in such wounds as burns and scalds. By the use of picric acid nature's method can be closely imitated, and instead of hindering the healing process it may be directly assisted.

The artificial scab produced by picric acid consists of coagulated albuminous fluids, reinforced by masses of detached epidermis. The scab is formed at once, thus lessening the chances of sepsis subsequently occurring under it. It has always been an axiom in burn treatment to preserve as far as is practicable the raised epidermis of the vesicles, for no dressing we may substitute can protect the underlying injured surface half so well. Picric acid preserves this layer, and by virtue of its hardening action transforms it into a large protecting scab. Healing in burns of the first and second degrees takes place rapidly without suppuration.

The technique of the method is very simple. The punctured vesicles must be accurately flattened out. No impermeable material must be placed over the simple gauze, which should be dipped in a saturated aqueous solution of the acid and applied after being squeezed fairly dry. Absorbent wool and a light gauze bandage further encourage evaporation, and thus retard the growth of any bacteria which may have gained access to the wounded surface. A pair of thin rubber gloves may be used to avoid the unpleasant staining of the dresser's hands by the acid. Renewal of the dressing need not take place for four or five days, unless there are clear signs of suppuration. The gauze is best carefully stripped off in a dry condition.

In the writer's experience picric acid has not caused toxic symptoms either in children or adults. He ventures to say that a closer examination

of the so-called toxic cases will reveal the fact that the symptoms were precisely those of septic absorption so commonly observed in grave burns under any treatment.

The advantage of picric acid in superficial burn treatment may be briefly summed up as follows: (1) Simplicity of application; (2) painlessness; (3) rapidity of healing due to (a) epidermization under scabs, (b) a favoring of epithelial growth, (c) a minimum of suppuration; (4) absence of local irritation, or of general toxic effect; (5) a smoother, more natural cicatrix than that obtained with other methods.—*Review of Reviews*.

Extreme Anemia, After Post-partum Hemorrhage, Treated With Nucleo-Albumens and Bone-Marrow.—By C. F. Bachmann, Ph.D., M. D., Alleghany, Pa., late private assistant to Prof. O. Huebner, Univ. of Berlin; Privat Docent Charity Hospital, Berlin; also assistant to Prof. von Leyden, etc.—The prompt and decisive results obtained in the following case of anemia, secondary to a severe post-partum hemorrhage, induce me to report it for publication:

Mrs. O. T., white, aged 23, primipara, weight 145 pounds; passed successfully through the ordinary diseases of childhood, and two years ago I treated her during an attack of typhoid fever, from which she completely recovered. About a year ago she became pregnant. The course of pregnancy was normal, with the exception of a slight edema and a varicose condition of the veins of the lower extremities. On January 2, 1899, she was taken in labor. Position, R. O. P. Owing to an excessively large head, I was obliged to apply the forceps without anesthesia. The placenta was firmly adherent, and, after an hour's wait, was delivered by hand. Scarcely had the placenta been delivered when a frightful hemorrhage occurred. I scooped out all clots and fluid blood and controlled the hemorrhage by injections of hot water, compression and tamponage. So much blood had been lost as to cause a sub-normal temperature and a small, weak pulse of but 32 to the minute; extreme anemia, great shock and prostration, thirst, sighing respiration, etc. I administered strychnine sulph., gr. 1-20, hypodermically; also, brandy and ext. ergot. The hemorrhage occurred at about 8 a. m., and by noon the patient had revived to some extent, but was suffering from nausea and occasional vomiting, for which I prescribed Liquid Peptonoids and Elixir Lactopeptine with good effect.

January 3, I found the patient somewhat improved, but very weak and almost bloodless, her lips being literally "as white as snow." I then ordered Hemaboloids (a preparation of the iron-bearing nucleo-albumens of the vegetable food stuffs, reinforced by bone marrow, beef peptones and nuclein) 5ij every three hours; also stimulants and a nourishing liquid diet. The excellent results obtained from this treatment are best shown by the following table:

	Weight. Lbs.	Hemoglobin. Per Cent.	Red Blood. Cells
January 3.....	135	61	3,450,000
January 7.....	138	66	3,509,000
January 14.....	140	71	3,760,000
January 21.....	140½	76	4,005,000

I did not see the patient again until February 12, when she appeared well and strong, and, to use her own words, felt "tip top." Weight, 140 pounds (the slight decrease probably due to excessive nursing); hemoglobin, 81½; red cells, 4,210,000. Patient was last seen a few weeks ago and was in first-class condition. Considering the profuse hemorrhage and the extreme secondary anemia, the result in this case was indeed satisfactory. I have

prescribed this preparation quite extensively and find it of great merit as a readily assimilable tonic in anemia, from whatever cause—chlorosis, convalescence, etc.

Since this case I have used Hemaboloids in several other cases of convalescence from labor with gratifying results.—*The Medical Council, July.*

Hippocratic Oath.*

NC Med J (Oct.) 44:250-251, #8, -20 Oct 1899.

By A. M. TRAYWICK, M. D., Nashville, Tenn.

Hippocrates, born on the Island of Cos, B. C., 460, was the most celebrated physician of antiquity. He belonged to the Æsclepiadæ—being the seventeenth in descent from Æsculapius. He received his instruction in medicine from his father and from Herodicus. Besides being a practitioner of medicine, he was a great philosopher. After spending some years in traveling through Greece, he settled and practiced his profession at Cos, finally, at about the age of eighty, dying at Larissa. Hippocrates was guided in his profession by the highest principles of honor and humanity. The Hippocratic oath, the formula of which is ascribed to him, bound all who sought to practice the noble healing art in the most rigorous bonds of honor and brotherhood. (Text of oath omitted.)

After practicing medicine for more than a score of years, and studying men almost as much as medicine, and noting the motives that prompt the actions of men in connection with the practice of medicine, and in studying this in connection with the Hippocratic oath, I am able to reach some conclusions:

1. Hippocrates, in the opening sentence of the oath, recognized the divine source of the power to heal.

2. The sacredness of the oath, which involves the idea of a professional obligation, is indicated by his appealing to the gods by name as witnesses to his supreme purpose to hold aloft the highest standard.

3. We also are made to realize his recognition of the high position occupied by the medical preceptor, and the reverence due him as one who conveys the knowledge of the high art.

4. Hippocrates emphasized the obligation to transmit a knowledge of medicine and the power to heal to those who are qualified both by ability and principle to use such knowledge rightly.

5. He brings out the sacredness of life, and the obligation of a physician to save and preserve it by proper treatment.

6. This physician of ancient times showed his deep conviction of moral obligations to restrain and keep under control the power conferred upon him and his profession, which might be used to the injury of others.

7. The highest ideal of both *personal* and *professional* life is held up to view.

8. When called in counsel by a brother physician, I should treat him as my host.

*Read before the Tennessee State Medical Society, Nashville, April 11, 1899.

9. When I call a brother physician in counsel, I should treat him as my guest.

10. There is a clear recognition of the limitations of the departments of medical and surgical professions respectively, and an expression of an honest purpose to *keep within those limits*. In this we find the primal elements of an ethical system which has come down to us through the centuries.

11. Hippocrates not only realized, but urged, the sacredness of the physician's trust, and his duty to preserve inviolate the purity and sanctity of the patient's home.

12. The sacredness of professional secrets is incorporated in this oath, especially those secrets the divulging of which would be injurious to the honor and reputation of the patient.

13. The reward which comes from right living, and the inevitable consequences of wrongdoing, are set forth, together with the privilege of enjoying the one or a willingness to abide by the results growing out of a life spent in the service of others.

14. That if these obligations were binding upon a man living in an unenlightened age, they press with the greater responsibility upon us, and are the more binding upon those in the practice of a great profession which has become illuminated and exalted by the Christian ideals of the nineteenth century.

15. We should, therefore, thoroughly study the word selfishness, and should abstain from every appearance of such a hideous characteristic. And in close connection with selfishness, but far more damning to the best qualities of the physician's life, stands that most to be dreaded of all evils—jealousy. The jealous man of all others carries the marks plainly to be read and known of all men, that he is the smallest man in the entire community, and is more to be pitied than feared.

16. To sum it all up in a few words: We must remember that the physician comes in the closest and most sacred relations of life. He sees men and women in their hours of weakness; sees them when judgment and will are overthrown by disease; sees them when the intellect is so shattered and enfeebled by disease that its mastery is lost, and ignoble passions rule unchecked and unrestrained, and there is, therefore, an imperious necessity that he should be a man of sterling integrity and stainless purity—chaste as the untrodden and unsunned snow.—*Memphis Medical Monthly*.

According to the *Journal of the American Medical Association*, the theory that bacteria are indispensable to digestion has been laid to rest at last by Levin's research in the Arctic regions, reported in *Hygiea*, No. 2. He accompanied the Nathorst expedition and examined the intestines of various birds and animals killed. With the exception of one polar bear and two walruses, the intestines were found absolutely sterile, and in these only a few specimens of the bacillus coli were discovered. Bacteria were found in the water, one colony to one cubic centimeter, the number increasing with the distance from the surface. The air was found absolutely sterile. No colds or catarrhs ever occurred among the men.—*Med. Age*.

Publishers' Department.

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CHAS. A. BAILEY, M. D.

Sept. 29th, '99.

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Scribner for October gives an illustrated description of "The Water-Front in New York" by Jesse Lynch Williams, that is both interesting and instructive. A song, "Hey Nonny No," by Marguerite Merington; "The Silent Wayfellow," a poem, by Bliss Carman. Joel Chandler Harris in his inimitable style continues "The Chronicles of Aunt Minervy Ann," telling (I.) How she and Major Perdue frailed out the Gossett Boys; (II.) How she joined the Georgia Legislature. An illustrated history of the "Vaudeville Theatre" is given by Edwin Milton Royal.

Jagging Jim—"Ello, Slumpy! Wat's de matter wid yer face and hands? Got de hives?"

Slumpy—"No—got de bees."—*Judge.*

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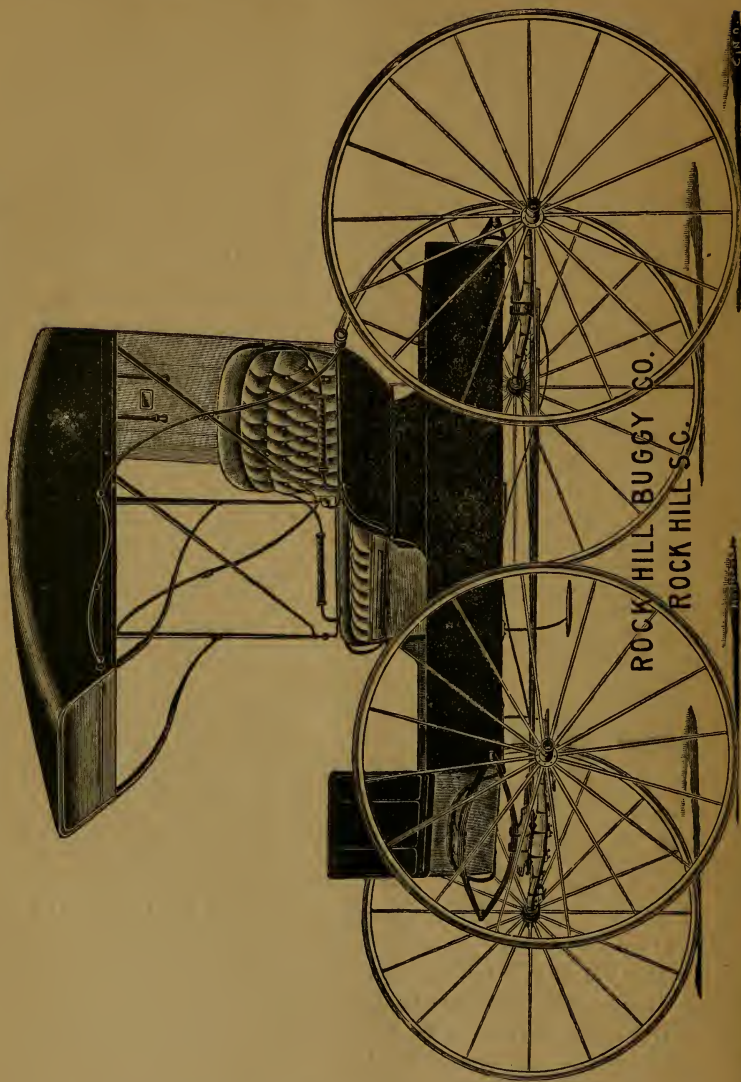
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NOVEMBER 5, 1899.

Vol. 44, No. 9.

NORTH CAROLINA Medical Journal.

Published Semi-Monthly at \$2.00 per Annum, in Advance.

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NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, NOVEMBER 5, 1899.

No. 9

Original Communications.

Cerebro-Spinal Meningitis.*

By JOSEPH W. IRWIN, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Kentucky School of Medicine, Louisville, Ky.

SINCE 1874, three severe visitations and many sporadic cases of cerebro-spinal meningitis have come to my notice. Every variety of the disease and its various complications and sequelæ were observed.

Following the very cold winter of 1873 and 1874, the disease appeared in Evansville, Indiana, and vicinity. Children were the most frequently its victims, and those who first took sick nearly all died. The aged were rarely affected, but a few cases occurred in persons over sixty, and they all died. The percentage of deaths was over sixty, and nearly one-half of those who survived were left crippled mentally and physically, and for them death would have been preferable to the miserable existence to which they were doomed. There were no prodromata. The disease came on suddenly with a chill or chilly sensation, and in young children convulsions often announced the attack. Pain usually began in the back of the head low down, but sometimes it was first felt in front, or on top, or on one side. Very rarely was pain complained of at the onset below the cervical region.

Within a few hours or one or two days, pain, usually lancinating and very severe, extended to the spine, arms and legs, sometimes girdling the chest and abdomen. Vertigo and nausea were early symptoms, the latter often continuing for six or eight days.

Dimness of vision was sometimes complained of at the beginning of an attack, which grew worse, and partial or complete blindness ensued. Divergent strabismus of one or both eyes appeared in some cases within the first two days of the illness. The face wore a peculiar expression of suffering, sometimes a waxy pallor, and sometimes a purplish red with the eyes suffused. Fever was usually not severe, the temperature rarely recording 103°

*Read before the Louisville Clinical Society.

F., and in some cases it was below the normal. The pulse was slow as a rule, but in some cases it would beat as high as 170 to the minute and without any apparent cause the beats would become less frequent until 40 or 50 to the minute were recorded.

At first, in the moderately severe cases, the pulse was full and strong, but after the first day it became weak and irregular. Mental symptoms appeared early, and often were more severe than the other phenomena present would indicate. After a few hours or a few days the symptoms became more severe, and the muscles of the back and neck were set in tonic contractions with the head thrown back beyond the perpendicular. On attempting to depress the chin, the pain in the neck and back was increased. Opisthotonos was present in severe cases and this symptom was especially prominent in most of the fulminant variety. The head and feet would come within a few inches of touching each other. In the fulminant form of the disease death was the only result, and this occurred in from four to seventy-two hours. All the symptoms gave evidence of intense suffering from the beginning. The pulse recorded 200 at times, again falling below the normal and the temperature going up to 106° or 107° F. The respiration was irregular and supracostal. Delirium was often wild, sometimes muttering, which ended in coma and death.

Purple-colored spots of various shapes and sizes appeared on the face, neck, body and legs, which often disappeared suddenly—at times remaining three or four days. Now and then a case was observed with waxy, pale face, feeble, irregular pulse, 35 or 40 to the minute, and temperature subnormal without opisthotonos or pain, which would deepen into coma and death in from four to eight hours. This form of the disease was very rarely seen. The disease in such cases seemed to be entirely confined to the brain. Where death occurred within the first few hours, autopsies revealed nothing of special significance beyond some patches of engorgement along the course of the blood vessels, over the hemispheres, on the side, at the base, and about the medulla. The cord presented similar appearances, though not so marked as the brain. There was no serous exudation.

Another class of cases that died after a week or two showed more marked changes in the brain and cord. The blood-vessels were hyperæmic, inflamed, with deposits of lymph smeared over them and in various patches over the hemispheres, in the ventricles, at the base, in the canal, and about the cord. Effusions, serous or purulent, were found at the base, in the ventricles, and in the canal of the cord. Here and there the membranes were adhered to the brain and numerous minute hemorrhages were observed.

In another form of the disease which was intermittent, the patient died after four or six weeks, or months, paralyzed and exhausted; the autopsies revealed abscesses and degeneration in the brain and cord.

The second visitation of the disease was in 1877, and nothing different from the first was observed. A few cases of small pox occurred at the same time. In both visitations croupous pneumonia preceded some cases, com-

plicated others and became troublesome sequelæ in a few of those who survived the meningeal trouble.

Pneumonia was present before, during or after the disease in one fourth of all the cases I had seen. In a few instances the cause of death was ascribed to it, as it was the most serious feature of the illness.

When the clinical picture of the malady was made up, neither the mycologist nor the ophthalmologist was a necessary factor in determining the diagnosis. A few cases only were observed in which there was any doubt as to the diagnosis, but after a day or two all doubts were removed. It would tax the powers of the most accurate observer to describe every detail of the objective symptoms even though sympathy with the sufferer had sharpened and rendered acute the workings of his special senses. But no great difficulty should be experienced in making a diagnosis when we remember that the disease is prevailing.

In sporadic cases mistakes in diagnosis are more likely to occur. A person in good health, suddenly seized with pain in the head over the hemispheres, on the side or at the base, with pain in the back of neck, in the spine, arms and legs, sometimes girdling the chest and abdomen, with anxious look, a suffused eye, the face flushed or of a waxy pallor, usually a slow pulse 40 to 60 to the minute, with or without fever, respiration irregular, may be regarded as having cerebro-spinal meningitis. Then add to this the vertigo, the disturbed vision, the hyperæsthesia, the sudden changes in temperature, the early delirium and the persistent nausea and vomiting, and the diagnosis becomes more apparent.

Kernig's sign will be present in all such cases. Since my attention was called to it a few years ago, I have not found it absent in any case either of the sporadic or epidemic kind. There is no practical difference in the phenomena of sporadic and epidemic cerebro-spinal meningitis. The same sort of bacilli have been found as the cause of both. Only in very exceptional cases will lumbar puncture be required to confirm the diagnosis.

The prognosis was always very uncertain. Even a mild case would take a turn for the worse, or be so long protracted that death would result from exhaustion. A high temperature was always an unfavorable indication, and it usually preceded death. Intermittent cases were the most protracted, but they usually recovered, and when the first ten days of illness were past without serious complications, recovery was the rule.

There was no time limit to the disease. Some were able to sit up and go about in two weeks, some in three to nine months, and others were not fully well after two or three years. Many of those who survived the acute part of the disease were left crippled mentally and physically for life. When it is remembered that the cerebro-spinal centres are the seat of the disease, any sort of complication or sequelæ may be expected to arise. Mental weaknesses were observed—some were deaf, some were dumb, others were blind, and some were paralyzed. Suppuration of the ear and joints, with swelling of the latter and contractures occurred.

In the treatment of cerebro spinal meningitis two important points were kept in view. One was an early diagnosis and the other the free use of opium. Opium was the most useful in the forming stage of the disease, but it was more or less useful in all stages. It proved useful in relieving pain and preventing mental complications, perhaps by arresting serous effusions into the cavities and delicate textures of the brain, as in like manner it controls an intestinal diarrhoea. Morphia alone was given hypodermically, and the vomiting was often relieved by it as well as the cerebral trouble. One-third or one-fourth of a grain repeated at intervals of a few hours was sufficient to afford relief. In fever the application of ice bags to the head and spine was useful. Hot foot baths were useful in equalizing the circulation when the extremities were cold. The bowels were kept open when indicated by the use of mild laxatives. The importance of maintaining the strength of the patient was kept in view, and food and stimulants were given in moderate quantities from the beginning. When nausea prevented their administration by the mouth, various mixtures of eggs, cream, and peptonoids were given by enemata. In cases having a sub-normal temperature, the full bath, tepid or warm, the patient being allowed to lie in it for half an hour, gave much relief. The bath was resorted to two or three times daily. Other remedies used lately which gave temporary relief were phenacetine, phenalgin, kryofine, caffeine and codeine; but the old remedy, morphia, was the most useful.

Counter irritants to the neck or spine proved to be useless. Sometimes the application of dry heat to the head and spine was soothing; hot salt bags, hop bags, water bags and hot flannels were used.

Laminectomy and spinal puncture, lately in use for diagnostic and therapeutic purposes, were not resorted to. Late in the course of the disease some benefit appeared to result from the use of small doses of bichloride of mercury, one-tenth of a grain three times daily. Iodide of potash and syrup of the iodide of iron and quinine were employed with apparent benefit to the patient. Complications were treated as the indications arose.

Since 1879, numerous sporadic cases of cerebro-spinal meningitis have come to my notice either as primary ailments or the secondary results. In acute cases I have found Kernig's sign of much value in making the diagnosis.

Cerebro-spinal meningitis, as it has recently prevailed in Louisville and throughout the State of Kentucky, has presented no new features. In some localities it has not been quite so fatal as in others. About 30 per cent. of the cases I have seen have died. In the southern part of Kentucky reports would indicate a death rate of 80 or 85 per cent., with the usual percentage of mental and physical cripple remaining. The average death rate recorded is from 20 to 80 per cent.

Let us turn to a brief history of cerebro-spinal meningitis, then view it in the clearer light of modern research, and some truths may appear and point the way to a better understanding of this dangerous malady, which may

ultimately enable us to arrest and destroy the assailant before it enters upon its diabolical work.

French writers claim that cerebro-spinal meningitis was recognized early in the Christian era, but Hirsch in his careful investigations has shown that the claim of the French is not well authenticated.

The first accurate report of cerebro-spinal meningitis was given by Vieusseaux of Geneva, in 1805, when it prevailed in that city and in various parts of Switzerland. At intervals of a few years it appeared in various parts of Europe, but England and Scotland were the least visited. It spread through Germany, France, Spain, Italy, Denmark, Sweden, Norway, Holland, and Great Britain, especially Ireland, and was known in that country as the "Black Fever." The disease also appeared in Russia, in Turkey, in Greece, and in Asia Minor. Cerebro-spinal meningitis was first observed in the United States in 1806. It appeared at Medfield, Massachusetts, and soon spread westwardly to various States North and South. It appeared at intervals in various cities, towns and villages, and in rural districts, sometimes not in the direct line of human commerce.

No very serious epidemic has been recorded in the United States, such as occurred in Sweden in 1854, when upward of 4,000 deaths resulted from a single epidemic.

The disease is said to be domesticated in Germany, and we may say that this is also true parts of of America. It has not been absent from Boston and Philadelphia for twenty-five years; about six thousand deaths have been ascribed to it in those cities within the last quarter of a century.

Cerebro-spinal meningitis made its appearance in Kentucky about the last days of November, 1898, and soon after was observed in various parts of the State. The first case I saw in Louisville was about the middle of December, 1898. The disease had been reported in Boston, New York, and Philadelphia, and in numerous smaller cities and towns about the latter part of August, 1898. It occurred in Baltimore and Richmond in October. It seemed to spread westwardly to various points, North, West, and South.

The question of direct communication between infected and non-infected localities has not been clearly traced, and the mode of communication from the sick to the well is still a mystery. The weight of evidence shows the disease to be infectious and even contagious, but the number of its victims are not numerous.

The writer has seen five cases in one house occurring in succession, three in another and two in another. He is also aware of the case of a lady who came from a village in an adjoining State and remained with her sister who was sick of meningitis, for ten days, and two or three days after returning to her home she became a victim to the disease. A child contracted it from the mother and a few cases occurred here and there in the village. No case had been known in that locality before. Two nurses who cared for the sick were stricken with the disease.

The foregoing instances, which point to a direct infection, are few when

viewed in the light of several hundred cases where only one occurred in each house. When we remember that there is no disease that affects everybody, and that the condition of the host is an important factor before the microbe enters, the few facts gain much force.

The recent discovery of the microbic origin of the disease must confirm the foregoing ideas of infection. Many forms of bacilli have been found in the meningeal exudates, but by far the most constant has been the micrococcus lanceolatus encapsulatus, either alone or with other bacilli. Lately the diplococcus intercellularis meningitidis has been found by numerous mycologists, Wischelbaum being the first to isolate it, in 1877. This bacillus is believed by many to be the cause of epidemic meningitis, and all agree that the Freidlander bacillus will cause the disease in a very malignant form. The latter organism was first isolated by Eberth in 1880. He found it in the cerebral exudates of a case of meningitis following pneumonia.

Bozallo and Leyden found the pneumo bacillus in 1883.

Next to find the same form of bacillus was Wischelbaum, in 1886, then Netter in 1886, Goldsmith in 1887, Ortman, Foa and Bordoni. Ufferduzzi found it in 1888, Baute in 1889, Mills in 1889, Monti in 1889, Bonome in 1890, Mirto in 1891, Klippel in 1891, Ribbert in 1892, Flexner and Barker in 1893, Boulay and Courtois-Suffit in 1890, and Zorkendorfer found the bacillus of Freidlander and diplococci in meningitis following suppuration of the ethmoidal cavity.

(Flexner and Barker's statistics quoted by Latimer.)

Prudden found the Freidlander bacillus in a case of traumatic meningitis. Netter found the pneumo bacillus in sixteen out of thirty cases of meningitis in which pneumonia had not occurred. Netter found the micrococcus lanceolatus eucapsalatus in the mouths of eighty per cent. of healthy people.

Pneumonia and meningitis are so frequently associated that Faggs, of Erlangen, has reported fourteen such cases that came to his knowledge between 1866 and 1872.

E. Masny experimented on animals with the mixed bacilli and found that the staphylococcus pyogenes aureus increased the virulence of the pneumococcus. Rabbits inoculated with the mixed bacilli died within one day, while those in which the Freidlander bacillus alone were used lived for two weeks.

In the report of the Board of Health of the State of Massachusetts, published in 1898, Drs. Councilman, Mallory, and Wright seem to have found in the exudates of cerebro-spinal meningitis the diplococcus intercellularis most frequently. In cases where lumbar punctures were practised within the first ten days of the attack, it was nearly always present in the fluid drawn off, but later it was not found so frequently. The bacillus will live in dried mucus or blood for four months. It probably enters the brain through the ear, the nose, or the stomach.

DISCUSSION.

Dr. J. W. Guest—It has been my good fortune to see five cases of cerebro-spinal meningitis in the last few months. I say good fortune advisedly, like my old professor, J. Lewis Smith, in speaking of diphtheria before the introduction of the O'Dwyer tube or antitoxin; he said when he had a child with diphtheria that recovered, he was inclined to doubt the diagnosis. As all of my five cases recovered perfectly, I feel that I have cause to doubt the diagnosis; however, I have dotted down the prominent symptoms which occurred in all five cases, and upon these symptoms the diagnosis was based.

Severe headache occurred in all cases; there was myalgia, but none of them complained of pain except on touching or moving them, especially in drawing the head forward; hyperesthesia was most marked; percussion or touching the body, even the legs or elsewhere, would cause them to cry out with pain, they were so sensitive; there was contraction of the muscles in all cases, the head was drawn well back and the spine was very rigid, almost the true oposthotonos condition; the thighs were flexed upon the abdomen, the legs upon the thighs; delirium in all cases appeared early; four were of the typhoid variety and one maniacal, the latter was a woman; the oldest was thirty-five; constipation was present in all cases, as was also retraction of the abdomen; the face had an anxious expression; examination of the urine in four cases proved it to be normal.

From these symptoms I made the diagnosis of cerebro-spinal meningitis. I treated four of the patients and sent the other to the city hospital. The four I treated by the application of ice to the back of the head continually until the temperature became normal, when it was removed. In one case, the temperature was $102\frac{1}{2}^{\circ}$ F.; in the others, it ranged from $99\frac{1}{2}$ to 100° F. There were no spots or eruptions on the thighs; no herpes facialis. The latter symptoms the text-books tell us occur in forty to fifty per cent. of the cases. There was no strabismus; no photophobia; no tinnitus aurium; no tremors of the muscles except when touched; when the patients were quiet, there were no muscular tremors; there was no history of vertigo, no erotic tendencies. The text-books state the latter symptoms occur in the vast majority of cases. In one case there was vomiting; two out of the five cases had chills; one case, a boy nine years of age, was the only one that had convulsions.

Under this treatment with ice-caps, and I gave $\frac{1}{2}$ ounce of Rochelle salts every two hours, keeping it up for two or three days, all cases recovered. I gave two of the patients opium; the other two did not require it. The earliest case recovered in five days, the longest case in ten days. In the woman, I had cause to suspect the trouble might be hysteria, as I have seen several cases of hysteria lasting from four to six days; but in the others, who were younger, there was no reason to suspect hysteria, especially in the boy nine years old.

I make this brief report of the five cases, thinking it may be of some interest.

Dr. Wm. Cheatham—In referring to the eye complications, I noticed that Doctor Irwin did not seem to think they were of much consequence in making the diagnosis. The doctor's cases must have all been typical. There are many atypical cases of meningitis in which it becomes very difficult to make the diagnosis.

I have seen but one or two cases of cerebro-spinal meningitis of the epidemic form. The eye and ear symptoms of cerebro-spinal meningitis may be summed up in the following: The tissues of the orbit outside of the globe become involved by extension of the inflammation through the superior orbital fissure, through the veins or along the optic nerve. We then have chemosis, exophthalmus and great œdema of the lids. A characteristic of the latter, is that the swelling ends abruptly at the bony rim of the orbit. We have often a catarrhal conjunctivitis at the beginning of the disease. Anæsthesia of the cornea which is sometimes present, may give rise to a neuro-paralytic-keratitis. The cornea may become infiltrated; imperfect closure of the lids may lead to a dessicative keratitis; the iris and choroid are frequently involved, especially the latter. The form of inflammation is sero-plastic. An exudation just posterior to the lens gives the appearance of a glioma, and is known as a pseudo-glioma. The eye is soft from the start, and usually ends in blindness, the globe shrinking. The disease is metastatic; the retina and ciliary body are of course involved. The disease is usually embolic in origin, the plugs being masses of micro-organisms. Cataract is an occasional complication.

I forgot to say that choroiditis occasionally is simultaneous with the meningeal involvement, and when this occurs that the connection could not be metastatic. Optic neuritis is a common complication, especially if the disease lasts over four or five days, and is important in the diagnosis of cerebro-spinal meningitis. The diagnosis we all know is not easy. Optic neuritis is bilateral usually; it is found in about one-fourth of the cases; it in a majority of cases, ends in atrophy of the nerve and blindness. The exudation being very profuse in the chiasma we are liable to have trouble with the abducens, motor oculi, trochlea and facial nerves. The abducens is the most frequently involved; rarely the motor oculi; nystagmus is sometimes present. Trigeminal anesthesia, hyperesthesia and paræsthesia are present quite frequently; disturbances of vision, spasms and paralysis are usually peripheral. Pupils contract, then dilate, and may be unequal. We all know deafness is rather a common complication of cerebro-spinal meningitis; it is not the result usually of pressure upon the trunk of the nerve, but more from involvement of the middle and internal ears; this occurring often in young children they become dumb also.

Two weeks ago I saw two cases the same day from different parts of the State. One was a boy twelve years old who was perfectly blind; the other a little girl five years of age who was perfectly deaf—both the result of cerebro-spinal meningitis.

Dr. W. F. Boggess—Doctor Irwin has covered the ground so thoroughly

that we can only add our clinical experience. I have been unfortunate enough to have seen twelve or fifteen cases of cerebro-spinal meningitis this year. In my hospital service I went on duty when the disease was most common in the city, and we had six or eight cases there. I had the pleasure of seeing a post mortem performed in three cases. One was stricken at nine o'clock one night, and the next night at the same hour the patient was dead. Another was stricken at seven o'clock in the morning, and at eleven o'clock that night was dead. The third was feeling a little sick on Friday morning, became unconscious suddenly the same afternoon at 3:30, I saw him at four o'clock, and at seven o'clock that night he was dead. In all three cases we held a post mortem which gave evidence of a very malignant form of cerebro-spinal meningitis. Cultures from one case were made and the meningeal coccus was demonstrated.

I saw a case of pneumonia in a stout, healthy man of twenty-four years, weighing one hundred and ninety pounds; the disease ran an atypical course; the whole right lung was involved, and about the tenth day he developed a meningitis, and in six or eight hours died. I am sure that was a pneumonia due to the meningeal coccus or a meningitis due to the pneumococcus.

I saw in consultation with Doctor Corrigan two or three days later, another case of pneumonia, which developed meningeal symptoms in three or four days, and died the eighth day of undoubted cerebro-spinal meningitis.

We had two cases at the city hospital in the female medical ward, of undoubted cerebro-spinal meningitis; one recovered and went home with only slight paralysis following. The other, a girl seventeen years of age, had as typical a case as I ever saw, and has recovered except that she is maniacal; she has fixed delusions and I believe her mind is completely gone.

I saw another case in a child five years, which recovered, but was utterly deaf afterward. A patient of mine from the country told me that in her neighborhood when the disease was epidemic there had been four recoveries in children, that one was an imbecile, one paralytic, one was deaf and blind, another blind, and her child was deaf. In these five cases the physical disabilities stated remained.

I have a little child in private practice that has been sick eight weeks, and the disease has run a typical course. In this case we practised lumbar puncture, drawing off some of the cerebro-spinal fluid, a culture was made and the meningo-coccus proven. This child is nearly well, it is sitting up now and is perfectly bright. There is no evidence of any of the senses being impaired. I have seen one other case recover in which a little child was both blind and deaf.

This is my clinical experience with the disease this year, and I must state that while the disease is one that is very difficult to diagnose, and we might oftentimes overlook some of the most important symptoms if it were not for the fact that our attention was called just at that time to the disease,

but if we are looking for the disease, it may be recognized. Where there is headache with fever, especially basilar headache, or sudden headache, that came on and did not respond to ordinary methods of treatment, we should suspect meningitis. I can easily understand, however, if our minds were not directed to this disease by an epidemic, how we might overlook it.

It is a question in my mind whether the disease is contagious or not. I believe the meningo-coccus is more contagious than the typhoid bacillus or the pneumococcus, if it had the same chance for dissemination that the others have. The meningo-coccus is confined within the spinal tube, as it were, and there is not the outlet for the contagion that we have in other diseases. I believe if this germ had the free access that other contagious germs have, that it would be as contagious as some of our more contagious exanthemata.

I think certainly the best essay that we have ever had is Councilman's report to the Board of Health of Boston. He reports 111 cases in which he practised lumbar puncture and found the meningo-coccus 105 times. In the 111 cases he also had several severe cases of pneumonia.

This disease is one in which the symptoms do not run a typical course; the fever and pulse are absolutely worthless in making a diagnosis or prognosis; you cannot rely much upon the fever or pulse chart.

As to treatment: I agree with Doctor Irwin that morphine is the sheet anchor in these cases. I do not believe bromides have any effect. Later on in the disease, I give iodide of potassium and bichloride of mercury, and I think after all that, morphine lessens the nervous excitement, it lessens the pain, it prevents tissue metamorphosis and stimulates the heart, and I always combine with it atropia. In all these cases, there is a tendency to respiratory depression, and the only true respiratory stimulant we have is atropia.

Dr. T. P. Satterwhite—I do not know that I have ever seen a case of cerebro-spinal meningitis, unless the one I shall briefly report belongs to that class. Eight weeks ago, I saw a young woman aged twenty-eight years, who was taken with some catarrhal symptoms; she had some sore throat, and intense pain in the occipital region, extending down into the cervical. There was no rigidity of the muscles, but she had intense hyperesthesia of the entire body. She had a dozen or more spots on her body, which looked like erythema nodosum, and were very sensitive. She had photophobia, from which she is just recovering. She has had severe headache until within the last two weeks. There was some brain disturbance, more particularly when sleeping. After she had become thoroughly aroused, she could not be made to believe that the hallucinations she had during sleep were not realities. She could not locate herself in the house, could not locate the street, or how the house was arranged. She was removed from her regular room. Except for these irregularities mentioned, she had no evidence of mental disturbance.

I was puzzled as to what was the matter, not having seen a case of cerebro-spinal meningitis, but in relating the case to several of my medical

friends they were unanimous in the opinion that it was a case of this disease.

Dr. J. M. Krim—The ground has been so fully covered by the paper that there is nothing left but to give one's personal experiences. I have seen eight cases of typical cerebro-spinal meningitis, and five of the eight died. One of the three that recovered is now suffering from hemiplegia. One of the patients, I believe, died from the effects of morphine. In only four of the cases was there present the characteristic eruption. Bromides, chloral and all the other hypnotics were tried, with but little effect. I used one quarter grain morphine with 1-150th grain atropia in the case of a young man twenty-six years of age, and after three or four injections there seemed to be some improvement. He was given one grain of morphine in four hours. At the suggestion of the consultant $\frac{1}{2}$ grain was given every hour until he had taken three grains of morphine altogether. After the last dose, I think in about half an hour, the patient became quiet and never rallied, though he lived twenty-four hours afterwards.

Dr. Ewing Marshall—I have had a limited experience with the disease under consideration, and am like Doctor Guest, these patients generally die. The cases I have seen have all died.

As to the transmission of the disease from one patient to another: It seems questionable whether the disease would not be more contagious than it is if the meningo-coccus were not inclosed in the bony canal. I have seen it stated frequently that it is a filth disease, that it is infrequently seen in the better class of houses, that there are few cases among the better class of people. The cases that I have seen have been in negroes, and even though they were in negro quarters, I have seen but one case in a house. If the disease is as contagious as it is supposed to be, I think in a house where there are several people more than one case would develop.

Dr. A. T. McCormack (Visiting)—The paper is a splendid exposition of the subject, especially from the standpoint of its being so practical. As general practitioners we can get more good ideas from a practical paper of this kind than from many such as have been written by Councilman and others.

I have seen five cases of cerebro-spinal meningitis, all of which died in about forty-six hours. In all of them there were the characteristic purpuric spots, and none of the cases showed any signs of amelioration from the treatment at any time. But my attention has recently been called, especially by contributions in some of the French journals, to a method of treatment proposed first by one of Crede's followers, known as Crede's ointment of silver, and their statistics have been very favorable. I have procured some of the ointment, but have had no opportunity to use it thus far. The only practitioner in this country who has used it, so far as I know, is a Chicago gentleman, who reports twenty-three cases with nine recoveries. They were all severe cases. The inunctions used are very large, one ounce at a time, on the chest and in the axillary space, repeated twice a day for six or eight

days. If this treatment proves to be effectual it will be a great blessing. Reports that have come to us from doctors over the State would seem to indicate that almost every disease in which there are any meningeal symptoms, during this epidemic, has been classed as cerebro-spinal meningitis. I am satisfied that many mistakes are made in diagnosis, especially by country practitioners.

Dr. J. W. Irwin—I was gratified to hear that Doctor Guest had met with such good success, having treated five cases of cerebro-spinal meningitis, with five recoveries. This is the first time I have ever heard any one state that all the cases of this disease he had seen recovered. The symptoms he recorded, are as a general rule, present in meningitis, but we cannot rely upon many of those symptoms until later on. Hyperesthesia does not usually occur the first day. Therefore, for diagnostic purposes, this symptom is of little value. There are many symptoms present in a disease which affects the cerebro-spinal centres. The temperature in this disease does not indicate its severity, except to show that there is some inflammatory action going on; but when it runs up to 106 to 109° F., it always precedes death within a few hours. That is one thing we can safely prognosticate. The edudates vary in various cases. Sometimes they are found only in the convolutions and sometimes along the coats of the blood vessels, in the form of plastic deposits. The arachnoid and the pia are sometimes attached to the brain, and an attempt at separation will find the tissue beneath very friable. I have seen the spinal cord so softened that when I tried to take a section of it between my fingers it would break to pieces.

In regard to the intermittent cases: An intermission simply means the recurrence or re-establishment of a new focus of inflammation at some point. Those cases that go along for several months usually recover.

As to the eye symptoms: I do attach value to them, but I cannot always have a skilled ophthalmic surgeon with me to make the investigations, we must resort to their help a little later. If we do not make our diagnosis within thirty-six hours, then opium loses nine-tenths of its good effect, for just as truly as opium will arrest a serous diarrrhœa, so will it arrest a serous discharge into the cavities of the brain, and by its early administration we have sometimes cured our patient before he is half sick. I had a case recently in consultation, where the disease was still confined to the brain, it began to show evidence of extending to the spine. Kernig's sign was present. Opium was freely administered, which arrested the progress of the spinal trouble, and the patient has since gotten along without any serious complication; he has been sick five weeks. I have seen since the beginning of the epidemic in this State nineteen cases. All of the cases I have treated as outlined in the paper, and five of them have died. Two have not recovered fully, one is half blind and paralyzed in one arm, the other is blind in both eyes and is partially deaf. Twelve cases have made good recoveries, except one is not fully strong—a man past the age of forty-five years. After forty years, the disease is usually fatal; after fifty, recovery practically never

takes place. Under one year, and up to two years, I have never seen a case to get well, while under seven or eight occasionally one recovers. The best age for recovery, is between fifteen and thirty. The fulminating cases all die. The autopsies show no evidence of disease except a little hyperemia, probably due to the bacterial poison which seems to paralyze the powers of life. Many of these cases have a reduced temperature. It often goes as low as 95° F. In another class of fulminating cases, there will be a high temperature from the start, and they generally die within three days. The fulminating cases cannot be influenced by any remedy. After death, nothing except a little sero-plastic exudate along the course of the blood-vessels will be found.

Deafness and blindness are complications sometimes, often sequelæ, in fact when the base of the brain is affected they may be expected to occur. Photophobia is very common in all forms of meningeal inflammation—specific as well as non-specific.

One point in regard to the differential diagnosis between tubercular meningitis and cerebro-spinal meningitis. The history of the case at once indicates tubercular meningitis; it also comes on slowly. It is not necessary here to go into the details.

Dr. Krim's experience with meningitis is fairly the average experience, five out of his eight cases having died. It is reported from Henderson, where the epidemic has been most prevalent, that the mortality was fully eighty-five per cent. Half of those living to-day are worse off than if they were dead. I saw eleven cases crippled in every manner. We may encounter any kind of sequelæ when the cord and meninges are involved. Look at the difficulties that will be in the way after an effusion takes place into the cranium, and the importance of making an early diagnosis is apparent, and how important it is to resort to the best method of treatment at once—opium. If we will arrest the serous effusion we will cure our patient before he is really beyond curing. When I say I have had over thirty per cent. of deaths this year, this corresponds to the general statement of others who have treated this disease. The death rate laid down in most text books is thirty to seventy-five per cent., but it ranges all the way from twenty to eighty per cent. Many other lines of treatment have been suggested and practised by others, but with no very good results. Spinal puncture may prove to be useful as an aid to diagnosis. It is also easing in its effect, removing pressure from the cord and from the base of the brain by drawing off a portion of the serum. So I think spinal puncture is destined to be somewhat useful as a therapeutic measure, as well as a means of establishing the diagnosis.

Chloroform as a Hæmostatic.—According to the *Journal de Medecine de Paris* for July 2d, Dr. Spaak, of Brussels, has obtained excellent results from a mixture of two parts of chloroform with one hundred parts of water. This mixture is said to rapidly arrest hæmorrhage after tooth extraction.—*N. Y. Medical Journal.*

The Treatment of Acute Dyspeptic Diarrhœa—With Clinical Reports.

By ROBERT C. KENNER, A. M., M. D., Louisville, Ky.

THIS expression of diarrrhœa has its origin in increased intestinal peristalsis, and this has its causation in the irritation produced by undigested, or tainted, or fermenting food in the alimentary canal.

This form of diarrrhœa is very common, and may prove very dangerous in many instances. Where the general health is impaired there is no doubt that an attack of acute dyspeptic diarrrhœa may often lead the patient into a condition of acute debility that may result in death.

In children, these attacks of acute dyspeptic diarrrhœa are attended often with much danger, and to them we can trace the cause of the great mortality occurring at this period of life.

It is the commonest thing for patients with diarrrhœa to apply to us for treatment, and inform us that this disease has been in existence for several months—and as a consequence they are materially reduced in flesh, and they are greatly weakened. This results naturally from chronic intestinal fermentation, which maintained the diarrrhœal process.

The fermentation which I have spoken of as the element in the causation of a large number of cases of diarrrhœa, is caused by improper diet in a large number of cases.

In the treatment of acute dyspeptic diarrrhœa there are two indications which deserve consideration. The *first* is the regulation of the patient's diet. The *second* comprises the exhibition of those medicines which are rationally indicated in the case in hand.

In carrying out the *first* indication we must at once give the patient a diet list—comprising foods to be employed and those to be avoided.

The following is the list of foods which I generally give to patients. Milk, hot milk, hasty pudding made of flour and milk, rice, in various forms, peas, bread of fine flour, rolls, biscuit and butter, blackberry preserves, cream toast, eggs well cooked, crackers and cheese, bread and olives, dried beef, dried codfish, claret, beer, brandy, tea, water sparingly, ginger tea, ginger extract, preserved ginger, salted meats in small quantities, cheese and milk instead of fresh meat, fresh fruits and vegetables.

The patient should be directed to live entirely on these articles of diet.

We can generally secure adherence to the diet, on the part of the patient, by letting him know that our success in the management of his case depends upon his strict attention to directions to dietetic as well as medicinal means.

In carrying out the *second* indication for treatment we will find that many practitioners make the mistake of prescribing astringents. What is needed in these cases is to evacuate the intestinal canal and then begin systematically with a remedy which is soothing to the intestinal coat, and which disinfects the alimentary canal. Opium and the vegetable astringents often do the most substantial harm by locking up the secretions. I have therefore ceased to give these remedies.

The first step in all these cases is to give some laxative or cathartic which will thoroughly evacuate the intestinal canal. My preference of drugs of this character, is for sulphate of magnesium. This, I give in doses of one-half to one ounce, as the case in hand may seem to warrant. Castor oil and other remedies may be given, but none have given me the satisfaction I have received from sulphate of magnesium. After sulph. magnes. has produced its characteristic watery stools, I begin with orphol, two tablets (five grains each) every two hours.

This agent is a non-poisonous, neutral, non-caustic compound, which contains eighty per cent. of oxide of bismuth, and twenty per cent. of betanaphthol. It is a most reliable intestinal disinfectant, and more rapidly relieves these attacks of diarrhœa than any other agent I have yet employed.

I give it in doses of two tablets every two hours, until there is material improvement, then I give in doses of one tablet and gradually lengthen the time between the doses until its further exhibition is unnecessary.

Below, I give some reports of cases treated on the plan here given preference:

Mr. J. S. B., age 37, called at my office and said that he had diarrhœa which had persisted for ten days, and had grown worse, and which had made him feel very sick and weak.

This man had paid no attention to his diet, and had eaten the very foods which he should have avoided. This attack of diarrhœa had its origin in a midnight supper, at which he had eaten copiously of the most indigestible foods.

I at once ordered him to have a full dose of sulph. magnes., and after its characteristic action he began with orphol in doses of ten grains (two five-grain tablets) every two hours. He reported at the office next day that he was greatly improved, and had fewer actions than any day since his attack. On the following day he came again, and told me that he was decidedly better if not well. After this he took one tablet (five grains) of orphol three times daily for two days, and had no further trouble.

Mrs. Q. V. S., age 29. This lady had been suffering with diarrhœa for six weeks, which had continued after getting up from an attack of typhoid fever. She also suffered with gaseous distention of the bowels—all the symptoms pointing directly to intestinal fermentation. After a free evacuation, following a liberal dose of sulphate of magnesium, she began taking orphol in doses of ten grains every three hours. She began to improve from the first day, the gaseous distension being relieved in the first ten hours.

The intestinal motions became less frequent daily, and she was discharged cured in one week.

Of course in this case as in the other, the diet was carefully corrected.

I must add that this lady took an orphol tablet after each meal for a week after the cessation of her diarrhœa.

She has had no return of her trouble now in more than four months.

Sophie S., age 16. This girl had a most troublesome diarrhœa, which

had continued for a week and had produced considerable debility. She was treated substantially as the above cases and made a speedy recovery.

Mrs. L. W. F., age 23, a delicate lady, who often suffered with severe protracted diarrhœas when she committed an indiscretion in diet. She had now eaten heartily of unripe fruit and had a most profuse and debilitating diarrhœa. She was given sulph. magnes., and after that she took orphol in doses of ten grains every two hours. This, together with corrected diet, produced the speediest and happiest results in four days.

Mr. L. L., age 49, applied for treatment for a diarrhœa which had caused him loss of flesh, and great distress in its six weeks' duration.

On a corrected diet, and orphol, after free action with sulph. magnes., he made a speedy recovery which occupied only one week.

QUEEN OF SOUTHLAND.

[Dr. Edwin Gladmon, of Southern Pines, N. C., writes as follows of this renowned resort:]

Thou hast wealth of wondrous glory,

Southern Pines.

Thou wilt live in fame and story,

Southern Pines.

Thine no dearth of nature's dower ;

Royal splendors round thee tower ;

Here is Eldorado's bower,

Southern Pines.

Favorite child of Nature, thou,

Southern Pines.

Lavishly did she endow

Southern Pines.

Cloudlands fairest eye hath seen

Purpled sunsets like a dream.

Float we not on Lethean stream,

Southern Pines?

Mistress thou of healing arts,

Southern Pines.

Here the great white plague departs,

Southern Pines.

Here hath Hope her city founded ;

Here is dark Despair confounded,

By Health's breezes all surrounded,

Southern Pines.

Not alone the body healing,

Southern Pines.

Balm thou giveth restless feeling,

Southern Pines.

Far from city's noise and din,

Enter here no strife nor sin,

In Southland's Queen peace reigns within,

Southern Pines.

—EDWIN GLADMON, M. D., in *Charlotte Observer*.

Southern Pines, Sept. 5, 1899.

North Carolina Medical Journal.

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Editorial.

NC Med J. (65) 44: 269-270 #9, JAN 1999.

THE INCREASE OF HOSPITALS.

One of the marked changes in medical practice that these latter decades have brought about, is the immense increase of hospitals, more especially of private hospitals. As it is now fashionable to be connected with hospitals and dispensaries, the accumulated wealth in the great centers of population threaten to make it very difficult for the young medical man to gain a foothold in our large cities, since these charitable institutions, destroy the pabulum upon which he must subsist in the beginning of his career. On the other hand, professional ambition is no doubt one cause for the increase of private hospitals. The last few years has witnessed the organization of a large number of hospitals, both public and private, in this State, and it is undoubtedly a fair presumption that this number will be augmented every year. The public is not slow to realize the many advantages for special treatment which are to be had in a well equipped modern hospital. It goes without the saying that hospital facilities have rendered possible great advancement, especially in surgery and gynecology—have enabled the acquirement of a high degree of skill in all operative work, and because of these facilities and of this skill, reducing to a minimum the dangers of surgical work. The question is sometimes asked whether the confidence thus inspired has not resulted in an increase of radical operative procedures among cases that might be better left to the less brilliant, but equally sure treatment by milder methods. This criticism applies much more aptly to individual operators rather than to the hospital system; the conscientious surgeon, whether in or out of a hospital, may always be counted on to consider the welfare of his patient, rich or poor, beyond all else.

The free hospital and dispensary system, while advancing the few, does so at the expense of less fortunate members of the profession, and their multiplication in large cities beyond all need of the really poor classes has worked a very material harm to the mass of practitioners, whose pay patients often receive free medical treatment at charitable institutions. Vigorous protests are being urged against this condition of affairs, and it is to be hoped that the medical attendants upon those institutions will join their less favored brethren in the effort to lessen so manifest an injustice. Such a situation is naturally limited to the large cities, but it is not impossible that at the present tendency to increased medical charities the evil may appear in a milder form in the smaller cities.

ARMY SURGEONS.

The widespread criticism, in some instances perhaps unjustifiable, of our medical management of the Hispano-American war, has done much to familiarize the public with the absolute necessity of a well organized and capable medical corps in war-times. However much in times of peace crankism and the gullibility of human nature may do to bolster up the innumerable charlatans and pseudoscientists who perpetually parade themselves before the people, the merciful services of the medical men are most profoundly appreciated in times of war, and it will undoubtedly follow the progress of scientific medicine, that the army medical department will receive a due recognition in estimating the military efficiency of any country.

If one may judge from the press reports, our Boer friends in South Africa are woefully deficient in this arm of the service. We read that at the battle of Elandslaagte on October the twenty-first, the Boers had only one surgeon and a primitive staff to cope with thousands of wounded. The amount of preventable suffering resulting from such a condition may easily be imagined. There has also existed among the surgeons of the British army such dissatisfaction with the recognition and recompense accorded to medical men in the service, that the young men of the profession have been disinclined to enter the army; hence the British government has recently taken in a number of surgeons from civil life. The salary paid this latter class is said to be so small that but for the prevalent war spirit it is doubtful if the required number could be gotten. At the present time, however, the number of applicants has exceeded the vacancies.

DECREASING BIRTH-RATE.

It has perhaps escaped the attention of most people that from authoritative sources the statement is made, that the birth-rate in the United States, the youngest of the great nations of the world, has shown such a steady decline during the last decades as now to be the lowest of any country in the world except France—the childless nation. Billing's statistics show that our birth-rate in 1890 was something over 26 per 1,000, a decrease of 4 per 1,000 since 1880. At the same ratio of decrease it is estimated that at the present

time the rate cannot be much over 23 per 1,000—a very slightly higher rate than that of France, which was 22 in 1894. Were it possible to obtain the birth-rate of the pure American population our rate of increase would likely be even less than that of France, it being admitted that the foreign population of the United States is more prolific than the native. Our contemporary, the *New England Medical Monthly*, comments thus upon this rather discouraging state of affairs: "What must be the result? 'America for Americans' will become but a meaningless phrase. Three generations back, our ancestors raised families of from six to twelve children each, and would have thought it strange had it been otherwise. Now it is the fashion to leave the raising of children (the future citizens and rulers of this country) to our emigrant friends."

It is altogether probable that this lessened increase among native Americans is more marked in New England than any other section of the country. We do not believe that the Southern States would show any such marked decrease in birth-rate—certainly not outside of a few of the larger cities, and as the population of this section is composed of over ninety per cent. native-born citizens, the causes for a decreasing fertility in the nation at large cannot be inherent, but must be largely at least artificial.

These causes are stated by our contemporary previously quoted to be: "Three important factors, which, combined, have tended to cause this unfortunate condition in our sociological system, are—(1) The so-called 'higher education' of woman, and 'woman's rights.' (2) The employment of girls in crowded factories. (3) Abortion. This last-named factor is one in which the physician should hold himself responsible and fearlessly use his influence in preventing. Ten years ago, the estimated number of abortions was one in fourteen pregnancies; now, the best authorities agree that one out of every five pregnancies in this country ends in abortion, occurring mostly, of course, in the higher ranks of life, where money will employ the requisite agency.

"In reference to ovariectomy as a causative factor, one writer states that 'careful investigations conducted in France, show that since 1883, French surgeons have spayed more than 500,000 women,' and no one can doubt that like investigation in America would show a similar gruesome record. Should 500,000 women be suddenly removed from a country by famine or pestilence, who would doubt its efficacy in decreasing the birth-rate?"

The Salisbury Sanatorium was opened on October 25th, and will be under the care and management of Dr. J. E. Stokes, recently of Johns Hopkins Hospital. Dr. Stokes was for seven years Dr. Kelly's assistant at the Hopkins Hospital, and has enjoyed the advantages of foreign study at Vienna and Leipsic. As Dr. Kelly's assistant he was personally acquainted with many physicians of the State, and his removal to North Carolina will be a most creditable addition to the medical fraternity.

Medical News and Items.

The Entire Medical Faculty of the University of Vermont has resigned.

Dr. John Thames, a rising young physician, has moved from Lexington to Greensboro.

The Loomis Sanitarium for consumptives near Liberty, N. Y., suffered the loss of one of its buildings by fire.

A Peculiarity of the x-rays is that some eyes are so affected by them as to be rendered blind to the shadows cast by bones, coins, etc.

The Proposed Quarantine against consumption in California will probably not be enacted, as only one member of the Board of Health favors it.

Dr. Wm. H. Howell, Professor of Physiology, has been made Dean of the Johns Hopkins Med. School, in place of Professor Osler, who has resigned.

The Plague in India is causing much concern in British Medical circles. This classic disease continues slowly to spread, and holds its own in all places.

Surgeon General John Hey Williams, of Asheville, met a serious accident on October 29th. His horse shied and ran upon an embankment and fell back on the buggy and across the doctor's left leg, breaking it below the knee.

A Philadelphia Judge, in a suit brought by a charity patient against the German Hospital, for alleged damages sustained while an inmate, decided that as a public charity, possessed of no funds except such as have been contributed by the charitably disposed for the furtherance of its philanthropic purposes, the diversion of its assets to compensate for injuries inflicted or occasioned by the wrongful acts of its agents or servants would be against all law and equity.

The Disposal of the Dead.—The question raised by the *Hospital* as to the disposal of the dead, between death and burial, is probably destined to obtain much fuller discussion, and to be settled in a more satisfactory manner, as we become more and more alive to the necessity of perfecting our sanitary arrangements. There can be no doubt whatever that, under certain existing conditions of life, the retention of the dead, within the house, is a source of danger to the community. This is especially recognized in times of epidemic infectious disease. In some towns on the Continent they carry this theory to its obvious conclusion, and the cemeteries are provided with handsome mortuary houses, built mainly of glass, through which it is possible for relatives to see their dead, decently and fittingly robed, awaiting final interment. This system, it cannot be denied, has several drawbacks, but as to its sanitary value, there exists no possible doubt, and this is admitted on all hands. It interferes, however, with a very deep-rooted sentiment, in a sphere which the State has come to regard as *ultra vires*. The system did not obtain trial abroad without the fiercest opposition, which we can all understand and appreciate; yet, when involuntary repugnance had been overcome, the usefulness of the idea, from the public health point of view, was immediately recognized, and there has never been any attempt at resistance, or any outcry for a return to the old order of things.—*Therapist*.

According to the *Journal A. M. A.*, T. B. Pandian, Madras, India, is now in Philadelphia for the purpose of raising sufficient money to provide for the purification of the drinking water used by the class of citizens known as "pariahs," in India, who are not permitted to procure water from the springs or rivers used by others. It is said that much of their drinking water is derived from puddles and stagnant pools.

Marrying Nurses—A discussion which ought by rights to have been relegated to the silly season has been carried on in one or more of the New York newspapers concerning the matrimonial propensities of the nurses employed in the large general hospitals of the metropolis, though it is not pretended that the practices complained of are by any means limited to the *milieu*. The allegations in the main do not impugn the morality of the nursing fraternity, or shall we say sisterhood? but it is asserted that the nurses and doctors "flirt and carry on," and that many nurses regard the hospital as a field for the matrimonial campaign. There is doubtless a certain amount of truth in this, for most of us can call to mind numerous instances of marriage between medical residents and nurses and even between nurses and their patients. Whenever a young man of prepossessing appearance is brought into daily and even hourly contact with a comely young woman, shown to advantage in a neat attire, who is not on principle averse from matrimony, there is always the possibility, *Dieu merci*, of a matrimonial sequel, and although a hospital ward is not an ideal *milieu* for Cupid's ravages, the very community of purpose and emotions paves the way to tenderer feelings. The rules at most institutions err, if anything, on the side of severity in the direction of repressing and reproving any intimacy between medical officer and nurse, but though they may hinder flirting pure and simple, neither they nor any rules that female ingenuity, as represented by the matron, may devise, can be relied upon to stamp out this very human instinct—nor should we approve them if they did.—*Med. Press and Circular*.

A Definition of a Medical College in Good Standing.—A resolution adopted on July 11th by the Illinois State board of health defined the phrase in the State medical practice law "medical college or institution in good standing" to include only "legally organized, properly conducted medical institutions, having a sufficient and competent corps of instructors, and ample facilities for teaching, dissections, ambulatory and hospital clinics, which conform to the requirements relative to the preliminary education of matriculates, the course and period of study, the number, character and length of lecture terms, the duration of attendance on hospital and clinical instruction, which obtain in the majority of medical colleges in the United States." The board also resolved that it would not consider in good standing, after January 1, 1900, any medical institution which does not require of all students (excepting graduates of reputable colleges of arts and sciences, or of reputable colleges of dentistry, pharmacy, or veterinary medicine, to whom one year's advance standing may be granted) as a condition of graduation, an attendance on four full courses of lectures of at least six months each, in four separate years, no two courses commencing or ending in the same calendar year of time. And it further declared that no medical college issuing a catalogue or an announcement in which are contained misrepresentations respecting its teaching, clinical or hospital facilities, its faculty or its courses of study, or false representations as to the number of students matriculated or in attendance, will be regarded as in good standing.—*Med. Record*.

Death-Rates of Abstainers and Drinkers.—According to the *Medical Record*, of 4,234 deaths collected by the British Medical Association, the ages of death in classes were registered, together with the cause, and the average of death for each class computed with the following result: Total abstainers lived on an average 51.22 years. The habitually temperate class lived on an average 62.13 years. Careless drinkers lived on an average 59.67 years. The free drinkers lived on an average 57.59 years, while habitual drunkards lived on an average 52.03 years.

The University and Bellevue Hospital College, New York City, opened October 1. Every student enrolled during this year will be a four-years' student.—The Medical Department of Grant University, Chattanooga, Tenn., opened October 11, the matriculations numbering about 150.—The opening of the Medical Department of Tulane University of Louisiana has been postponed to November 2, on account of the quarantine against New Orleans.—The Chattanooga Medical College has opened with the largest class in its history. This is extremely gratifying, particularly as the four-years' course goes into effect with this session.

According to the *Indian Medical Record*, a hospital in Melbourne is devoted to the treatment of diseases of women, the managing committee of which almost entirely consists of women. But when the annual appointments of resident physicians are made, it is said they are not given to women physicians but to young men. The candidates are appointed by ballot, and a young man of good appearance and engaging manners can rely on the votes of the women managers. This is not due to a lack of applicants of the other sex, for "within the past three months three medical women of ability have applied for vacancies in the resident appointments, but in each case a male competitor was chosen instead." These facts, as the *Record* remarks, are significant, but it does not further explain them, except to say that they are not encouraging to those of the gentler sex who study medicine in Melbourne. The new woman in whom the normal heterosexual impulse is supposed to be suppressed does not appear to be strongly in evidence in the antipodes.—*Journal A. M. A.*

Mr. Moody on Physicians.—There is a good deal laid up to the devil that belongs to us. When we talk of disease, for instance, being the devil's work—that is downright nonsense. If we are healed, we should give thanks to God that He has provided good medicine and able physicians. The Lord gives good doctors and healing medicines. I do not believe that doctors are devils. Far from it. I think the noblest profession outside of the ministry is that of medicine. Some of the noblest men I have ever known have gone out as medical missionaries, devoting their lives to doing good with the skill and healing medicine the Lord conferred upon them, and these men are called devils. God have mercy on the man who says so. God forgive the man who holds such belief! God heals, and heals through doctors and through medicine. Do not be carried away by the railings of fanaticism. We have a new ism in America about every year. Beware of the isms! What would I do if I felt sick? Get the best doctor in Chicago, trust to him, and trust to the Lord to work through him. The doctors have done wonders as their knowledge has grown. They have reduced the dangers of death in diseases that once slew all they touched. And the doctors, if God helps them, will yet find a way to stop the ravages of other terrors.

Book Reviews.

Dixie Magazine for October is an interesting number. "The Mother of Napoleon" (Illustrated) by H. S. Turner, is the first of a series of historical sketches of the Emperor's family. Fiction is represented by "As Angels May," by Wingrove Bathon, "The Madness of Gabriel Juneau," by E. Carl Lilsey, and "The Door on the Stair," by C. M. Corardean. "Southern Poteries and Southern Clays" is continued from September and concluded.

Elihu S. Riley writes entertainingly of "The First Theatre in America," which he states, on the authority of the *Maryland Gazette* of June 18th, 1752, was in the historic town of Annapolis. A history of "The Loyalists of America" is given (illustrated with photos) by Viscount de Fronsac.

Scribner, for November, opens with a story of the "Great November Storm of 1898." This was one of the most destructive storms ever known on the New England Coast, and it was the occasion of many stirring incidents associated with the irresistible power of wind and sea. President Hadley, of Yale, writes on "The Formation and Control of Trusts," giving a very clear statement of the motives and conditions that lead to their organization. The stories of the number are, "The Man on Horseback," by Wm. Allen White, a strong, vivid picture of life and politics in a growing Western city; "The Real One," an amusing romantic comedy, by Jesse Lynch Williams, and the conclusion of Quiller-Couche's beautiful story, "The Ship of Stars."

Married.—BAIRD-WILFORD. In Asheville, on Wednesday, October 18th. Dr. Harrison Lenoir Baird and Miss Nancy Orman Wilford.

Died.—MRS. ALICE BATTLE, wife of Dr. Samuel Westray Battle, died October 29th, at the family residence, Buncombe Lodge, in Asheville. Mrs. Battle was a daughter of Rear-Admiral George E. Belknop, U. S. N., retired, of Brookline, Mass., and was about 37 years of age.

DR. W. B. COUNCIL (the father of J. B. Council of Salisbury) died at his home in Boone, Watauga county, on November 4th.

DR. W. C. McDUFFIE, one of the most prominent citizens of Fayetteville, died Oct. 31st. He was one of the ablest physicians in the State.

The *Fayetteville Observer* says of him: "Dr. McDuffie was one of the most distinguished physicians in the State. He was President of the State Medical Association in 1885, and since the organization of General Parker's brigade of United Confederate Veterans, has been surgeon on General Parker's staff. He was a man of versatile gifts, which he had cultivated by the reading of the classics. He was an admirable speaker and was often called upon to preside at public meetings. As chairman of a banquet, he was inimitable, his sparkling wit and his clever and apposite quotations from the masters of literature, well becoming his captivating and impressive presence. He was tall, broad-shouldered and full-bodied, and his massive head nobly crowned his fine figure. He was the soul of good humor, and his heart overflowed with kindness and love for his fellow-man."

Review of Medical and Surgical Progress.

The Pulse as it Relates to Prognosis in Typhoid Fever.—Dr. Henry Jackson, in discussing the value of the pulse in diagnosis and prognosis, says: In uncomplicated cases of typhoid fever, the rate of the pulse is slow relatively to the degree of the fever and the general condition of the patient. When the pulse is continuously rapid, the prognosis become proportionately grave with the increase in the rate, though no other alarming symptoms arise to render us doubtful as to the outcome of the case. Leaving out of consideration hemorrhage and perforation, a rapid pulse is an index that the patient is in danger of succumbing to the specific toxemia produced by the disease. The pulse is to us an index of the effect upon the individual patient of the poison of the typhoid, and is of far greater value than any other one symptom or any group of signs or symptoms.

I have seen patients die who had only a rapid pulse as indicative of danger, while again and again, I have seen patients recover where the pulse ran from 110 to 120, yet they were very stupid, had involuntary passage of urine and feces and perhaps frequent vomiting. I am so sure of my ground in this matter that in the individual case I dare to make a favorable prognosis if the pulse is slow, no matter how unfavorable the other symptoms may be. On the other hand, a rapid pulse, independent of any complication, as hemorrhage or pneumonia, causes me great anxiety.

Roentgen-Ray Examinations in Incipient Pulmonary Tuberculosis.—Francis H. Williams (*Medical News*) makes a report of five cases in which the physical signs were slight and in which the X-ray examination was of assistance. These are in addition to three cases previously reported. A second group of four cases consisted of those in which there were no physical signs, that is, whose lungs were normal by auscultation and percussion. The findings of the X-ray were verified by the finding of tubercle bacilli in the sputum or by the reaction with tuberculin. The examinations were made by the fluorescent screen in preference to the X-ray photograph, experiments showing that the former method showed a perceptible darkening in some cases in which there was shadow shown by the latter.

In doubtful cases two X-ray examinations should always be made at an interval of some days, in order that the second examination may verify or disprove the first, as there are various conditions which may temporarily give signs similar to those observed in pulmonary tuberculosis.

In studying tuberculosis by the X-rays we usually find that the apex is darkened and the excursion of the diaphragm is shortened; but we may find now and then only a general diminution in the clearness of the outlines of the lungs and of the ribs. This latter condition is found probably in cases where the disease is disseminated, but it is not easy to recognize this slight departure from the normal unless the physician is in constant practice with the fluoroscope.

Gonorrhea.—Colombini (*Brit. Med. Jour.: International Medical Magazine*, August '99) uses in the acute stage a 0.25 per. cent. solution of Protargol. After making the patient pass water, and washing the glans and prepuce with some antiseptic solution, he first injects a syringeful of protargol in such a way that sufficient room is left for the outflow of the injection; then refilling the syringe (which is made to hold 6 c. cm.) to two-thirds of its capacity, he injects the solution very slowly, blocking the meatus completely,

so that it may not run out again. The syringe is carefully removed, the patient being directed to keep the meatus closed with his fingers for 15 minutes, and not to pass water for an hour. As the inflammation subsides, the strength is gradually increased up to 2 per. cent. The solution is injected at the temperature of the air. The first day one injection is given, the next one in the morning, and another in the evening; the third and following days one in the middle of the day as well. The injections are continued for 20 days after the cessation of the discharge, the daily number being gradually diminished to one. Colombini gives details of 21 cases, and sums up that the results were excellent in every respect. The gonococcus quickly disappeared, the subjective phenomena speedily ceased, the discharge was rapidly diminished and modified, and complete recovery occurred without any complication. According to him, it realizes the ideal of a remedy for gonorrhea, curing the disease rapidly and effectually, without the least irritation or undesirable after-effect on the mucous membrane.

The Etiology of Rickets.—(Editorial, *Archives of Pediatrics*, October, 1899.)—Rickets is unquestionably increasing in frequency in this country. This opinion has recently been expressed by Ratch and other observers. Dr. Morse in a recent study of the subject, concludes that 80 per cent. of the children under two years, of the poorer classes of Boston and adjacent vicinities, have rickets. The actual exciting cause of rickets has not yet been determined, nor has its exact pathology been settled. We know enough, however, about its causes to classify it as a preventable disease. Possibly, the only exception to this statement, is in the case of a Southern race transferred to a cold climate. Rickets is essentially dietetic in its nature, though bad hygiene is a very important element in its etiology. It is a disease of nutrition, complex in nature and not due to a single cause. Animal experimentation and clinical experience both teach that this disease may result from dietetic errors alone.

The diet which will most certainly be followed by rickets is one deficient in fat. If deficient in proteids also, the certainty of rickets is increased.

If to this deficiency is added an excess of carbo-hydrates, we have the diet par excellence for the production of rickets. Such a diet we have in perfection in condensed milk and certain of the proprietary foods.

Of the unhygienic conditions tending to the production of rickets, lack of sunlight is apparently the most potent. The disease is unknown in India and most tropical countries, even though the children commonly receive inadequate nourishment. They live, however, perpetually in the open air.

It is apparent that the surest means of producing rickets in a young child, is to provide a food deficient in fat, and over-rich in carbo-hydrates, and to exclude sunlight and air.

R. L. F.

A Case of Hemiplegia in a child.—Dr. Norbury (*Pediatrics*, 1899, Vol. viii, No. 7) reports a case of hemiplegia occurring in a child three years of age.

The child was born at full term, easy labor, without forceps and traumatism, and was robust and healthy from birth.

The child was taken with a chill, followed by high temperature, which lasted several days. On the morning following the chill, it was noticed that he could not stand, and was not able to talk. Hemiplegia was pronounced, involving the left leg, arm and the face. The power of speech was lost entirely, and not until about three or four months later was any improvement apparent. Then the child commenced to speak, and there was gradual im-

provement of the other symptoms. A rigidity of the affected extremities developed with the progress of the case, also contractions of the flexors, and the reflexes became exaggerated. Athetoid movements are present in a mild degree.

The child has the usual mental capabilities for his age, and his conduct is good. No convulsions have followed, and development of the limbs has not been greatly interfered with. The question of etiology can only be surmised; it evidently was of infectious origin, producing either local meningial disease, or possibly inflammation of the cortex.

R. L. F.

An Application to Rectal Ulcers.—Dr. Tuttle recommends, after the introduction of a Sigmoid speculum, the application of a solution of protargol to all the ulcerated surfaces. This he repeats twice a week, while each day he applies, through a bougie, a solution of hydrostis. Cure is usually effected in from six to twenty weeks.—*Kan. City Med. Index.*

Primary Testicular Mumps.—Dr. Landon Edwards (*Journal American Medical Association*, 1899, Vol. xxxiii, No. 16,) reports four cases of primary testicular mumps that come under his care during an epidemic of parotitis in the winter of 1898-'99. Three of the cases were in young medical students, of fairly good health; the fourth case was a young man who boarded in the house with one of the students. Other cases of ordinary epidemic parotites were in the boarding-house with these students, but these attacks ran the usual course without notable incident worthy of record. The most exacting inquiry could not elicit the history of impure intercourse, or of recent venereal disease, in either of the four cases referred to; nor was there history of inquiry or traumatism about the generative organs.

Beyond the prevailing influence of epidemic mumps, there was no apparent cause for any disease of the contents of the scrotum. These patients had never had a previous attack of parotitis.

During the course of the disease, there was no urethral discharge, no bladder irritation, no evidence of suppuration anywhere, nor did the involvement of the epididymis leave any sign of permanent change in structure.

While the neck glands became secondarily involved in three of the cases, in only one case were the signs of parotitis at all prominent. In none of the cases were the testicular signs or symptoms modified when the salivary glands became secondarily affected.

As to treatment, guaiacol was used in two of the cases reported, without benefit.

Phenacetin with salol and digitalis relieved much of the discomfort. Tobacco poultices over the testicles, and afterward absorbent cotton wet with 15 to 20 per cent. solution of ammonium chlorid, applied on the scrotum. Rest in bed and suspensary bandages for the testes. By the eighth or ninth day all signs and symptoms of the disease had disappeared, and no impairment of function seems to have resulted in any of the cases.

R. L. F.

Fever and its Treatment.—(*Hare, Int. Med. Mag.*) As a rule in medicine as well as in everything else, the wise physician will not follow the claims of those who, on the one hand, assure us that all fever is evil; or, on the other hand, that fever is harmless; but he will follow the middle path, in which he will recognize that sometimes it is harmless and sometimes it is capable of doing great damage. The occasions on which it is harmless will be those in which the temperature does not exceed $102\frac{1}{2}^{\circ}$ or 103° at the

most; and those in which it will be harmful will be those in which it will run from 103° to 105° . It is also to be remembered that the duration of the fever and the character of its cause seriously modifies the question as to whether its existence is dangerous to the patient, for we can readily understand that a patient with a temperature of 102° or 103° , continued for three or four weeks, as it is in typhoid, might in the end receive injury; whereas a patient with a temperature of 104° or 105° , during some acute ailment which only lasts a few hours or a few days, could stand this hyperpyrexia without damage. The following propositions will express my views:

First, that fever when excessive or prolonged is harmful.

Second, that moderate fever, not too prolonged, may be of distinct advantage to the patient.

Third, that moderate fever, not too prolonged, even if it is not advantageous, may be, on the other hand, not deleterious, but may be regarded by the physician without any anxiety as a characteristic concomitant symptom which we would naturally expect to find in a patient suffering from the disease which is present in the patient's system. Applications of cold water is by long odds the best means we have for reducing temperature which we believe to be harmful to our patients, whether these temperatures be hyperpyrexia of acute illnesses, or whether they be manifestations of more prolonged maladies; but I desire to emphasize a point which I believe is too frequently ignored in the use of cold water in the treatment of fevers, namely, the necessity of always resorting to active rubbing or friction of the body and extremities of the patient, while cold water is being employed, for the double purpose of maintaining the circulation by equalizing it and of bringing the hot blood to the surface so that it may be cooled, for, as we all know, the application of cold to the surface of the body causes contraction of the peripheral capillaries and the congestion of the internal viscera, where it is impossible for the cold applications to the surface to materially reduce the temperature. These cold applications do good not only by abstracting heat from the body, but they also do good by improving the nervous tone of the patient, and, what is very much more important, they improve the tone of his vascular system, the friction preventing any tendency to congestion or stasis in important organs, such as the liver, lungs and kidneys. In the ordinary infectious diseases with high fever, the vascular system too often becomes disorganized and lacking in elasticity, just as a hollow rubber ball will become brittle and inelastic if kept motionless for a long period of time; whereas, if the rubber is exercised each day, by squeezing it in the hand, it will maintain its elasticity indefinitely. By means of the cold bath, or sponging, the blood vessels have their elasticity maintained and the circulatory apparatus is therefore kept in good condition.

Quinoliv.—*The Georgia Medical and Surgical Journal* has the following abstract of a paper by Willard H. Morse, M. D., consulting chemist and therapist, London, England.

I do not recognize that there is any need of discussing the question as to the palatability of quinoliv. That is a fact which admits of no dispute. Quinoliv is true to its name—a “*tasteless* sulphate of quinine.” In full definition we style it a “*tasteless* sulphate of quinine with olive oil.” But—with doleful experience with certain emulsions to fortify the doubt—there comes up the question as to whether this preparation may not lose some of the therapeutic qualities of its sulphate of quinine. This, indeed, might well be alleged with plausibility of reasoning; but intimate consideration

procures a ready and distinctive denial. The conception of some physiological actions by therapeutists are fearful and far-fetched; and this is one instance. For myself, I cannot conceive of even a remote possibility of the kind occurring; and it is a satisfaction to know that both laboratory work and clinical experience carry proofs. I fail to find any difference between the therapeutical application and physiological action of the plain sulphate and quinoliv in the stomach.

I do not much care in what form, manner or character quinine reaches the stomach, as it is sure to diffuse into the blood with the greatest facility. As contained in the bark, the alkaloid is readily dissolved out by the gastric juices. "A five-grain dose is a five-grain dose, cloak it, thrall it, or black-ball it." As far as gastric action goes, olive oil is simply a menstruum, and a good one. It neither synergizes or antagonizes the action of the quinine in the stomach.

And here these words will be critically repeated: "In the stomach?" I make the distinction of purpose. But, it will be urged, it is only the gastric action that is reckoned. Bartholow has well said: "If any portion of cinchona bark or its alkaloids fail to be absorbed in the stomach, and pass into the intestines, it will, most probably, be excreted and escape with the fæces; for the alkalinity of the intestinal juices will hinder absorption or prevent it entirely." This is good reasoning, and embraces the view that is generally indulged. No observer gainsays this—quinine is intestinally wasted.

Now, notice, as a valuable fact, quinoliv, fully the equal of the plain sulphate in the stomach, is *not* intestinally wasted.

In the metamorphosis of animal fluids, olive oil plays a prominent part when properly ingested. Oil is a very important material in intestinal digestion, and olive oil is very like the molecular basis of the chyle—finely comminuted fat. Taken in as quinoliv, it undergoes the emulsionizing process in the small intestine, and by aid of the biliary and pancreatic secretions, it then enters the veins and lacteals, carrying the quinine with it, and, in fact, being absorbed the more readily because of the presence of the quinine. Now, what is the advantage? It is notable and three-fold.

It is economical—no intestinal waste.

It is sustenent—of true food value.

It is antiseptic—neutralizing and destroying the ever-present bacilli of the small intestine.

Quinoliv then, being absorbed and well utilized in the small intestine, the quinine purchases the very largest advantage, and in addition to its other availability as indicated, has a more direct influence on certain disorders. For instance, diarrhœa, dysentery, and jaundice, where the disorders are due to structural alterations of the liver and the glandular apparatus of the intestine. Again, in treating the malarial fevers, not infrequently an irritable condition of the stomach precludes gastric action; in such instances quinoliv is remarkably efficient. For cholera infantum I should prescribe it confidently, as it is effective when every possible combination of astringent and laxative fail. For intestinal catarrh, where mucus is voided and vomiting of a yeasty material occurs, the morbid state of the mucous membrane on which the disorder depends is rapidly healed, and the micro-organisms are destroyed. For skin diseases, quinoliv is preferable to the plain sulphate every time; and for obvious reasons.—*Willard H. Morse, M. D., Consulting Chemist and Therapeutist, Fellow of the Society of Science (Lond.), American Director of the Iamatological Bureau, etc.*

Therapeutic Hints.

The following recipes for relief of headache we clip from the *Journal of A. M. A.*

Headaches.—Dr. Joseph Collins suggests the following prescriptions for various forms of headache :

R Pulv. opiigr. ss | 03
 Zinci phosphidigr. ss | 03
 M. Ft. pil No. xx. Sig. One pill three times a day for headaches following the infectious and exogenous intoxicants.

Early in the treatment the following tonic should be administered :

R Ferri et ammonii citrat.....gr. xl 2 | 60
 Liq. potass arsenit.....m. xl 2 | 50
 Syrup zingiber.....℥ ss 15 | 55
 Infusi calumbæ, ad.....℥ iv 124 | 40
 M. Sig. Two teaspoonfuls after meals.

UREMIC HEADACHE.

R Potassii citratis℥ ii 1 | 80
 Tinct. hyoscyami.....℥ ii 7 | 80
 Spts. eth. nit.....℥ ii 7 | 80
 Infusi scopariæ.....℥ vi 23 | 40
 M. Sig. Tablespoonful in water three times a day.

HEADACHE ASSOCIATED WITH FLATULENCY AND PYROSIS.

R Sodii bicarb.
 Bismuthi subgall.
 Pulv. acacia aa.....℥ i 3 | 90
 Liq. ammon. anisi.....℥ ii 7 | 80
 Aquæ destil., ad.....℥ viii 248 | 80
 M. Sig. Two tablespoonfuls before meals, repeated in three hours if necessary.

HEADACHE FROM SLUGGISH CIRCULATION.

R Ext. cannabis ind.....gr. ⅓ | 02
 Ext. gentian.....q. s.
 M. Ft. pil.

HEADACHES FROM GENERAL ANEMIA.

To overcome the sluggish condition of the digestive tract, with headaches dependent upon a general anemia :

R Quinin sulph.
 Ext. aloes aq., aa.....gr. xii | 78
 Pulv. capsici.
 Pulv. ipecac, aagr. vi | 39
 Glycerin, q. s.
 M. Ft. pil No. 12. Sig. One pill at midday.

If associated with considerable vital depression, he uses the following pill instead, giving at the same time some absorbable form of iron :

R Ext. nucis vomgr. ss | 03
 Pil. rhei compgr. iiii | 20
 Pulv. capsici.....gr. ¼ | 016
 M. Ft. pil. Sig. One pill at midday.

NEURASTHENIC HEADACHE.

Hamilton prescribes the following in neurasthenic headache :

R Ammon. carb℥ iiii 11 | 70
 Tinct. moschi℥ vi 23 | 40
 Spts. lavandulæ℥ i 31 | 10
 Elixir ammon. valerianat℥ viii 248 | 80
 M. Sig. Two teaspoonfuls at a dose in water.

The following is recommended by Lucking :

R Ext. cannabis indgr. 1-6 | 010
 Zinci phosphidigr. 1-10 | 006
 Acidi arseniosigr. 1-30 | 002
 For one pill. Give twice daily for some time.

Leonard Weber claims that the following combination will relieve headaches promptly, and better than any single coated remedy :

R	Acetanilid	gr. i	065
	Phenacetin	gr. v	32
	Antipyrin.....	gr. v	32

M. Sig. For one powder.

HEADACHE DEPENDENT UPON OVARIAN DISEASE.

R	Ammonii bromid	ʒ vi	22	40
	Ext. hydrastis fl.....	ʒ ss	15	50
	Tinct. gentian comp	ʒ iss	46	60
	Aquæ	ʒ iv	124	40

M. Sig. A dessertspoonful three times a day.

—Siukler.

Quinsy.—

R	Tinct. aconita rad.....	m. xvi	1	
	Tinct. ferri chlor.....	ʒ i	3	90
	Sodii chloratis.....	ʒ i	3	90
	Glycerin	ʒ vi	23	40
	Aquæ, q. s. ad	ʒ ii	62	20

M. Sig. A teaspoonful every hour to be swallowed slowly and left as long as possible in contact with the fauces.

—A. H. Smith.

R	Potassi bromid	gr. lxxx	5	20
	Sodii salicyl	ʒ i	3	90
	Tinct. opii deod	ʒ i	3	90
	Cascara cordial, q. s. od.....	ʒ i	31	10

M. Sig. Teaspoonful every four hours in water.

—E. Fletcher Ingals.

R	Tinct. guaiaci ammon.			
	Tinct. cinchonæ comp. āā.....	ʒ ss	15	50
	Mellis despumat	ʒ iss	46	60
	Bene simul agita, et adde:			
	Potassi chlorat	ʒ iiss	9	75
	Aquæ, q. s. ad.....	ʒ viii	248	80

Fiat gargarysma. Sig. Use as a gargle every half hour and swallow a teaspoonful every four hours.

—Samuel O. L. Potter.

R	Ol. eucalypti.....	m. qv		72
	Spts. camphor	ʒ iss	5	85
	Tinct. guaiaci.....	ʒ iiss	13	65
	Glycerin, q. s. ad.....	ʒ i	31	10

M. Sig. Ten drops on sugar, to dissolve in the mouth, every hour or two.

—Miles.

Urticaria of the Mucous Membranes.—Dr. Packard (*Archives of Pediatrics*, 1899. Vol. xvi No. 10) says there is no very evident reason why urticaria should not affect the mucous membranes as well as the skin, its relative infrequency being probably best explained by the irritation of the latter by the clothing and the unwarmed air.

He reports three cases of urticaria associated with marked asthmatic symptoms. He finds in a number of cases, from the literature of the condition, a very close relation between the skin lesions and the respiratory symptoms. He thinks it by no means impossible that some of the gastrointestinal symptoms present with urticaria, indicate, not the persistence of the cause of the urticaria, but the actual existence of urticaria in the stomach. In the literature many cases pointing to that view are to be found. Involvement of the genito-urinary tract is apparently more rare than that of other mucous membranes. He reports a case, however, which he believes to have been this condition in a man who had marked hematuria, which ceased quite promptly as he became covered with a profuse crop of typical urticaria. He had previously had frequent attacks of hives, but had never had hematuria before this occasion.

R. L. F.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical*, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution*, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "**Syr. Hypophos. Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, NOVEMBER 20, 1899.

No. 10

Original Communications.

Hæmorrhoids and Their Treatment.*

By JOHN R. IRWIN, M. D., Charlotte, N. C.

THIS is perhaps the most frequent disease to which man is subject, and one of the most ancient in medical history, dating back in Hebraic times before Moses lived and before the building of the city of Babylon. No doubt it prevailed from the fall of Adam, because he and his descendants were subject to the common laws of nature, and the same causes produced the same effects then as now. No age or clime is exempt from this disease, and every race subject to it—those living in towns and cities and the inhabitants of the country as well.

Usually regarded as one of the slight ailments, yet often complicated, and the treatment directed to the mere effects of the malady—the hemorrhage, the congested and inflamed mucous and cellular membranes, the organized tumors, etc., to the entire neglect of the real cause of the trouble. Hence, in its treatment, there has been perhaps more empiricism and quackery than in any other in the whole domain of medicine, and here charlatanry has found its most fruitful field. Many a man and woman has been humbugged by salves, suppositories and pile cures, and made themselves the willing dupes of ignorant and confident pretenders.

Multitudinous are the remedies that have been vaunted as cures of this trouble, perhaps more than the cities claiming Homer's birthplace. Even superstitious notions, such as charms, incantations, invocations, amulets, etc., have been invoked to cure or prevent the disease, though no one has ever attempted to explain their *modus operandi*, and, of course, cures never result from any of these except in the operations of the imagination.

Even in this day of progress and enlightenment, I know, and each one of you, no doubt, knows of individuals who carry a buckeye in their pockets as an amulet for the relief and cure of hæmorrhoids. How unlimited and inexhaustible is the stock of credulity in this world! To all such an emi-

*Read before the Charlotte Medical Society, Nov. 7, '99.

nent author very appropriately recommends "that he or she wear the precious stone chrysolite in a ring on the middle finger of the left hand; as this stone is described as being the friend or patron of wisdom, and the enemy, etc., of folly."

Anatomy.—In studying this disease, and examining with a view to making a diagnosis, manipulating the parts and performing operations, it is important to know the anatomy of the rectum. Much has been learned with regard to the etiology, pathology, etc. of piles, by dissection and injection of the arteries and veins in communication with them.

Rectum is a misnomer in the human species. In the lower animals this organ usually presents the straight form, and from this fact the term probably originated. This division of the alimentary canal begins at the sigmoid flexure and extends to the anus, and measures six to eight inches, the length being somewhat in proportion to the height of the individual. The lower one-third, the portion most concerned in the development of piles, is fixed, and the other part movable. From the apex of the coccyx it turns upon itself, backward and downward, for about one and a half inches, completing its course at the anus. This should be remembered in introducing the finger, an instrument, or the nozzle of a syringe, to push it forward towards the bladder for about an inch and a half, then backward towards the sacrum, for I have seen physicians even, trying to introduce these by pointing directly backwards. This point was first suggested to me several years ago, by Dr. Tuttle of New York. The lower part of the rectum is only covered with peritoneum on the anterior surface, and is reflected on to the bladder, forming the recto-vesical pouch, the lower portion of this fold being from two to two and a half inches from the anus in the male and three to three and a half inches in the female. The hæmorrhoidal area extends from the anus about three inches up the bowel, and consists of a venous plexus encircling the intestine and lying in the submucous connective tissue. The veins returning the blood from the rectum and anus are devoid of valves; and the superior hæmorrhoidal which returns the blood from the lower part of the rectum, and its branches, pass up under the mucous membrane three or four inches, then perforate the muscular coat and can be seen on the outside of the bowel. Verneuil says this anatomical arrangement is an important and active cause of internal hæmorrhoids. The nerves of the rectum are supplied from the sacral plexus of the cerebro-spinal system, and the mesenteric and hypogastric plexuses of the sympathetic system, hence the many reflex symptoms frequently attending this trouble. Of the two sphincters, the external is one of the most important muscles of the whole body. The internal one is not of much importance surgically. It is situated immediately above the external one, and subserves a good purpose as an anatomical guide in locating the openings of internal fistulæ.

Classification.—1. External. 2. Internal. For centuries this has been the division, and continues to be the simplest and best, because based on pathological facts. External, when the tumor is external to the external

sphincter and involves the skin, while the internal commence in and are covered by the mucous membrane. The latter may, in chronic and long-standing cases, protrude outside the anus, but there is a well-marked difference, the external having a purple tint and irregular surface, while the internal has a smooth, shining surface, and red or claret color. External piles are not usually painful unless inflamed or happen to be of the thrombotic variety. Internal hæmorrhoids are painful, especially if situated within the grasp of the sphincter, and indeed the suffering may become intense, with a desire to strain down. Then they swell and keep the sphincter in a state of spasmodic contraction, which intensifies the pain, and may cause strangulation and ulceration. Internal hæmorrhoids are more serious than the others, from frequent hemorrhage, which causes them to be denominated "bleeding piles," and they cause perhaps, as much mental and reflex disturbance as any disease with which we have to contend. The bleeding is in most cases venous in character. When it has the appearance of being arterial, by spurting, Cripps offers the theory that the powerful abdominal muscles force the blood through a rupture in the vein, as a regurgitant stream. If the individual is strong and healthy, the bleeding does not affect the general condition, yet the annoyance is very great. If weak and anæmic, the arrest of these hemorrhages is usually followed by improvement in health. Bleeding was for a long time considered salutary even by physicians, and many among the laity of the present day entertain this opinion, which is erroneous, for hæmorrhoids are often the result of the very diseases which they were supposed to prevent, and instead of being emunctories through which the morbid humors are evacuated, rather tend to intensify and complicate existing disease.

Etiology.—The causes are predisposing and exciting. The anatomico-pathological arrangement of the veins of the rectum, already mentioned in speaking of the anatomy of this part of the alimentary canal, is an element of great importance, because the other predisposing causes, such as age, sex, sedentary life, and alcoholic and other excesses, are all more or less connected with it. As quadrupeds have no such disease, the erect posture may be a factor, and the absence of valves in the superior hæmorrhoidal veins and the vessels into which they pour their contents, increases the natural tendency to stasis. Erichsen says "The whole pressure of the column of blood in the portal system is thus brought to bear upon the hæmorrhoidal plexus." Not only this, but the veins receive very little support from surrounding structures, and Verneuil claims that the branches of the hemorrhoidal veins pass through little slits in the muscular walls of the rectum, which also intensifies this anatomical cause. It is now a well-known fact that railway employees are very prone to this disease and that the conditions of their occupation, irregularities in living, combined with the irregular jarring motion of the train, play an important part as an etiological factor in the production of this disease. Piles are said to be more common in men than women early in life, because the pressure of the blood is relieved by the menstrual flow. But pregnancy renders women very prone to the trouble,

and the congestions which attend and follow the climacteric, by retarding the portal circulation tend to produce hæmorrhoids. Sedentary life, by bringing about disorders of gastric and intestinal digestion and abnormalities of the liver and portal circulation, are common and powerful factors in bringing about the hæmorrhoidal disease. So also alcoholic and other excesses. Heart disease, especially mitral regurgitation or obstruction, and obstruction to the pulmonary circulation as seen in general emphysema will give rise to hæmorrhoids, by means of the chronic passive congestion of the liver produced. Spasm of the sphincter excited by blood stasis, increased congestion from fissure, varicosity, or acute hyperæmia of the mucons membrane, will bring about or aggravate the hæmorrhoidal condition. Heredity exercises an important and an undoubted influence in the production of this disease. There are so many and varied causes and constitutional peculiarities, inherited and acquired, predisposing to the trouble, that it is out of the question to mention them all in the limits of this paper. Among the exciting causes constipation is the most frequent and important.

I shall pass the symptoms and differential diagnosis, as you all are, no doubt, familiar with these, but let me insist that you always make a careful visual and digital examination in every case before prescribing, because very absurd mistakes are frequently made as regards a correct diagnosis.

Sims's position is best for an examination, and don't fail to use a speculum, and an anæsthetic, if necessary.

Treatment.—This is palliative and surgical. The first or medical treatment is intended to make the patient comfortable and if possible also to cure the disease. As the physician is not often consulted in the primary stage of the disease, this treatment is mostly employed to relieve the sufferings of the patient and to carry him through an acute attack or an exacerbation of the disease, but to be efficient, it must be constitutional and local, addressed to the primary cause and to allaying the inflammation, pain and turgescence of the vessels, etc. The irritation of the piles themselves can be diminished by the use of aperients, which fecal matter the motions and tend to relieve congestion of the portal circulation, by exciting secretion from the intestinal mucous membrane; such, for instance, as equal parts of sulphur and bitartrate of potash, comp. glycerrhyza powd., or the laxative mineral waters. One of the best laxatives and aperient remedies that I have used when the liver is engorged or congested is this:

R Hydrarg, Chlor, Mit.....	gr. iij.
Fel Bovis Inspissat.....	gr. xxiv.
Quin Sulphat.....	gr. xij.
Ext. Taraxaci.....	ʒ ss. m.

Ft. in Caps., No. 15.

Sig. Take one capsule before each meal, three times a day. After giving these, the mercury may be omitted from the prescription, or a milder aperient may be used. When the hæmorrhoids are due to hepatic congestion, besides laxatives and purgatives of a cholagogue character, exercise, especially walking uphill and riding, as advised by Lander Brunton, should

be recommended. These forms of exercise tend to compress the liver rhythmically, and more or less forcibly, between the diaphragm and the abdominal muscles. Belladonna, by its action on the vaso-motor nerves, diminishes the calibre of the dilated veins and capillaries in the early stage, and is a valuable agent. Ergot promotes the contraction of the relaxed hæmorrhoidal veins, and is indicated when the piles are attended by hemorrhage.

In hæmorrhoids in puerperal women, the main cause is pressure of the gravid uterus upon the rectum, and the constipation so common in this class of patients, though diarrhœa may also help develope them. There is the same atony in the hæmorrhoidal veins as exists in the muscular coats of the rectum, and the indication is to prescribe something that will restore tonicity of these veins. Dr. Fordyce Barker suggests small doses of aloes, say $\frac{1}{6}$ gr. combined with hyoscyamus, when constipation exists, and with a small quantity of opium when associated with an irritable rectum and frequent, small, thin, teasing evacuations, and having used this suggestion myself in quite a number of cases of this kind, I can testify to its efficacy.

If an ointment is desired, equal parts of ung. gallæ, ung. stramonii and cerat. of subacetat. of lead sometimes gives relief, or an ointment containing muriate of cocain, remembering that cocain is scarcely soluble in any grease or oil, except lanolin, and that this should be the base for ointments containing it. The absorbing power of inflamed hæmorrhoids is very feeble, and hence the local application of salves and ointments frequently does very little good. If protruding and very much inflamed, a poultice of flaxseed-meal gives some relief. Therefore, in summing up the palliative treatment of hæmorrhoids, I would advise and lay great stress on careful attention to the action of the bowels; the state of the anus; the advantages of increasing in the diet the proportion of vegetable food to meat; the eating of fruit; the great importance of physical exercise as preventive of constipation and the injuriousness of stimulants. However, in well-formed and prolapsed piles, such treatment is absolutely futile and the aid of surgery must be invoked to effect a cure.

Surgical Treatment.—When this disease yields so readily to operative treatment, is it not strange that not only the friends of a patient, but frequently even the family physician advise not to have an operation done, and they continue to suffer from harassing symptoms and frequent exacerbations entailing much suffering and loss of time?

While there are a dozen or more recognized operations for hæmorrhoids, there are only two that you often hear mentioned—1. Ligature; 2. Clamp and cautery. The injection method smacks so much of quackery, and is liable to result in embolism, pyæmia, abscess, fistula, fissure, ulceration, sloughing of cellular tissue; causes intense pain in many cases; and, besides all this, does not remove the tumor, but shrivels it up, forming a nodule that may cause future mischief, that, on account of the many complications that may follow and the uncertainty of this method, it is rarely used, and has been confined mostly to the itinerant and is considered the least surgical of all known plans of treatment.

Whitehead, of Manchester, England, in 1887, advocated the method of removing the entire pile-bearing area. His method is to divide the mucous membrane transversely above the hæmorrhoids and from the skin at the anal orifice, then to dissect out that portion between these incisions and stitch the severed free margin of the membrane above to the free margin of the skin, with silk sutures. This operation may deserve a place in the surgery of the rectum, but its adoption has never become general in this country or abroad, because there are simpler, safer, better, and much less painful operations that are quite as effective. And in my opinion, though the books do not mention it, the patient is made the subject of more or less chronic irregularity of defecation, by having the complicated nervous mechanism of the lower part of the rectum destroyed which signals the consciousness to co-operative voluntary expulsive effort. Moreover, no surgeon should select this operation for a patient unless he would himself be willing to submit to it, in the patient's circumstances.

Perhaps the oldest operation, as it was used long before the Christian era, and the safest except the clamp and cautery, is the ligature. After this operation, the wounds take some time to heal, and there is considerable pain; the patient suffering greatly the first twenty-four hours and even two or three days in some cases. When the pedicle is large, the ligature may cut only half way through. This is an unpleasant complication and occurs somewhat frequently, necessitating removal with scissors, increased pain and delayed healing. The suffering and suppuration continue until the ligatures have separated, and the confinement in uncomplicated cases by the ligature method varies from three to five weeks. The cases where the ligature operation should be employed, however, are those having any tendency to cardiac and kidney disease, and when there is an atheromatous condition of the vessels and the patient old and feeble. When it is known that the individual has the hæmorrhagic diathesis, operation must be avoided or undertaken only in case of urgent necessity and then the ligature should be the method employed.

When you have to decide between rival operations let this always be your rule: put in the first rank efficiency; second, safety; third, facility; fourth, gentleness. These should be the criterion for the choice of the operation, and believing the clamp and cautery operation meets these requirements, it has been my favorite operation in nearly all the cases of hæmorrhoids that have come under my care and been subjected to surgical treatment.

After deciding to operate, the preparation of the patient should be careful and thorough. Small daily doses of calomel, followed by a saline laxative. Give a large enema of warm water the night previous to day of operation. Early the next morning have it repeated, and when it has acted thoroughly, a good dose of opium should be given. The patient, of course, should have no breakfast, as an anæsthetic will be required. The patient having been anæsthetized and the sphincter well stretched, preferably with

the thumbs, a large sponge, attached to a good stout thread, should be thrust well up the rectum. The external parts and rectum should be flushed with bichloride of mercury 1-1000 and the bowel later washed out with sterilized water. It is not necessary to shave the parts. Some operate on the side, Sims's position. My preference is the lithotomy position, with the limbs well flexed on the abdomen, and held in position by Cloner's clutch. This gives a better view, doesn't require assistants to hold the buttocks apart, and the operator has the free use of his hands.

The sphincter having been previously stretched, each tumor is then seized with a hæmorrhoidal forceps (Tuttle's is the best) and drawn down. The clamp is then applied to the base of the tumor, and the portion external to the clamp excised with scissors, then the thermo-cautery point, at a dull red heat, is passed over every portion of the stump till all bleeding is arrested, then the clamp is removed. Each tumor is thus successively treated, always taking the precaution to apply the clamp in the longitudinal (up rectum) direction, which prevents contraction and stricture. Irrigate the rectum, remove the sponge and apply carbolyzed vaseline. Very satisfactory results, after operations for removal of hæmorrhoids, may be obtained by using a suppository of boric acid and 5 gr. of orthoform, introduced after each movement of the bowels. This is a local anæsthetic with considerable antiseptic power, and which develops its analgesic action when it comes into direct contact with exposed ends of nerves. On the third day I have the bowels moved by repeated small doses of salts, if a dose given the night previous is not effective, and thereafter endeavor to secure a daily movement.


The advantages of the clamp and cautery operation are, it is easy to perform, can be quickly and safely done, is less painful than the ligature operation, the healing is much more rapid, the patient being detained from business not over a week. I had one patient a few weeks ago that would not remain indoors and from business but three days. He is a traveling man, and went to work under protest and experienced no bad results from resumption of work. The longest confinement of any case I have ever operated on by clamp and cantery method was ten days. This patient was a physician and had polypus complicating hæmorrhoids. They and the polypus were removed and he was well in one week, but he wished to rest up a few days longer. The only unpleasant result that ever happened to a patient of mine after operation for piles, was suppression of urine, which occurred in one case and lasted twenty-nine hours. The gravest symptoms did not supervene, but the patient's condition gave me some anxiety. I relate this case, to mention the treatment which finally relieved the condition very promptly. After trying some of the diuretics, cupping, poultices of digitalis leaves to the lumbar region, diaphoresis and mild purgation, with a view to restoring the renal function and of inducing a compensatory elimination of urea and the products of tissue-waste by the skin and mucous surfaces, I catheterized the patient at 4 p. m., and found no urine in the bladder whatever. At once gave 1 gr. citrat of caffein per orem and 1-30 gr. strychn.

sulphate hypodermically, and ordered him to have another dose of the caffeine at 5 and 6 o'clock. At 5:45, the nurse phoned me to ask whether it was necessary to give the powder due at 6 o'clock, as the patient had just passed eight ounces of urine. He had no further trouble and returned to his home one week from the time of the operation.

In conclusion, gentlemen, let me say that this subject is a very important and much larger one than it is generally considered to be, and I have been compelled to pass over many points which seem worthy of consideration, and to treat it briefly and somewhat hurriedly.

Lithæmic Cystitis and Its Treatment.

By G. WIGHT, M. D., Bethel, Conn.

 ONE of the most interesting monographs published in recent times is that of Haig on the uric acid diathesis, in which he advances most ingenious theories as to the causation of disease by the uric acid toxin. Notwithstanding the fact, however, that he devotes such an unusual amount of space to this one topic, and includes within the uric acid category nearly every malady that flesh is heir to, yet he says little or nothing on the bearing of uric acid excess on the *genito-urinary organs*. In truth, there is very little literature on this point to be found anywhere, though the importance of the subject will be admitted by all.

After long and tedious examination of various authorities we find that Gouley, in his treatise on "Diseases of the Urinary Organs," p. 106, alludes to the fact that some of the most distressing cases of cystitis are caused by uric acid excess. Prof. Keys, too, in his admirable work ("Genito-Urinary Diseases with Syphilis," p. 322), says: "There are no inflammatory conditions, acute or chronic, of any portion of the urinary passages which are not aggravated by over-acid urine, while some of them are caused in the first place by it."

Having witnessed so often the tendency of the urates and uric acid crystals to become precipitated on the bottom and sides of a vessel into which urine has been voided, especially if the vessel stand a few moments in a cool room, we can scarcely avoid the conclusion that there are many causes, mechanical and otherwise, that, under certain favorable conditions, would produce a similar deposit in the bladder itself. We know that the urate salts are precipitated from the blood whenever the latter for any reason is made less alkaline than usual, and we know that such a state of affairs never occurs more certainly than when there is an abrupt cooling of the entire surface of the body, and the acid excretion from the skin is thereby checked, as when leaving a hot room or theatre and entering at once into the chill night air outside—which, by the way, is already recognized as a frequent cause of cystitis, as well as inflammation of other mucous membranes. May not, therefore, this sudden deposition of the uric acid salts in

the mucus membranes and various connective tissues of the body, serve to explain the *modus operandi* of "catching cold?" If so, we can readily understand why hot alkaline drinks are so beneficial in such cases and often abort the "cold."

Many lithæmic subjects—especially middle-aged business men, overfed, and thin anæmic women, overworked—pass urine which is habitually strongly acid, high-colored and of high specific gravity, depositing uric acid or mixed urates on cooling. In such cases any reduction of the alkalinity of the body secretions causes molecular storing of the uric acid salts on the floor of the bladder and elsewhere, with its train of attendant evils, for, that uric acid is a chemical irritant and will eventually set up congestion and inflammation of surrounding tissues, is abundantly evidenced by the results which follow the deposition of its salts in the fibrous tissues of the joints—as in gout or rheumatism. It is to these cases, therefore, and they are very common, that the term "lithæmic cystitis" is meant to apply.

Inflammation of the mucous membrane of the bladder having once become firmly established, the constant presence of pus there decomposes the urea of the urine, liberating the volatile carbonate of ammonium, thus rendering the urine alkaline and ammoniacal, with the characteristic fleshy or organic smell and dark-brownish sediment. This alkaline fermentation of course causes intense pain, the bladder becoming distended with the liberated gas in the same manner as do the stomach and intestines in case of fermentation of the undigested contents of either of those organs. While it is true, therefore, that in chronic cystitis the urine voided is distinctly alkaline, yet at the moment of its entrance into the bladder from the ureter it is as strongly acid as ever, and is constantly bringing down lime and urate salts to serve as irritant foreign bodies to the inflamed area.

In all of these lithæmic cases there exists in combination with the genito-urinary trouble a general disturbance of the gastro-intestinal tract, the patients complaining of indigestion and constipation, and usually having flabby, heavily-coated tongues and foul breath. It is evident that such a condition is unfavorable to the cystitis, for with constipation present the liquids which should pass off with the fæces are retained, and the acid contents of the bladder are proportionately increased. Saline laxatives, therefore, are plainly indicated to reduce the amount of the bladder's work.

Hitherto our treatment of these cases have been mainly empirical. We have treated the symptoms. We have relieved pain. We have applied to the affected surface various medicaments to abort or reduce the inflammation; but we have never removed the toxin itself, that which caused and will keep up the inflammation indefinitely. It is manifestly our duty, when confronted with a case of chronic cystitis, the symptoms and history of which point toward lithæmia, to prescribe at once an effective uric acid solvent. For this purpose the laxative salt of lithia, thialion, is now being recognized as one of the most efficient therapeutic agents at our command. Its great advantage in this class of cases is attributed partly to its anti-lithic effect, and

partly to its stimulating action on the liver, producing outward osmosis and free bilious discharges from the bowels. In the case given below the effect of the remedy was so immediate and gratifying, that it is cited here as a point in favor of the uric acid theory of causation and treatment of the disease under consideration.

Mrs. B., American., æt. 40, married, with two children, was a sufferer for many years with chronic cystitis. She had become broken down and very thin, evidencing an abnormal condition that required instant relief. Her principal complaints were backache, sacral pain radiating upward and backward from the perineum, and a desire to strain after the act of micturition as though the bladder was not fully emptied. Indeed the tenesmus was at times so great as to leave her quite exhausted for a number of minutes. She urinated frequently during the day, and was obliged to get up often during the night, the resultant loss of sleep inducing finally a state of extreme nervousness. Jolting or riding, too, caused severe pain over the region of the bladder, and she was obliged to confine herself largely to the house.

The treatment consisted of teaspoonful doses of thialion administered in half a glassful of hot water three times daily before meals. This was kept up pretty regularly during the entire treatment, the patient being instructed of course to diminish the dose if the bowels should become too loose, or the litmus paper indicated a urine too strongly alkaline. She was advised to drink much milk and to partake but sparingly of nitrogenous foods.

The result of this simple method of treatment was all that could be desired. After taking four ounces of the remedy the improvement was most marked in every respect. She was rarely obliged to get up at night, the backache disappeared and the constant desire to urinate became a thing of the past. She could ride slowly, too, in a carriage without experiencing any distress. In this manner she continued to improve for another fortnight, or until she had taken the second bottle, at which time, notwithstanding she had been ill for many years, her general and local condition had reached such a favorable stage as to require no further treatment.

A Remarkable Accident.—The following case is reported by Dr. J. W. Bird (*The Laryngoscope*): Mr. H., aged 24, while running across the yard in the dark, ran into a wire clothesline. The wire drew through his mouth and caught in his teeth, throwing him to the ground and tearing out nearly all of the left superior maxillary with eight teeth on it. The dimensions of the bone were as follows: External surface, two and a half inches; height, one and five-eighths inches; and depth one inch. The left half of the roof of the mouth, the floor and outer wall of the nasal fossa were removed with the bone. The Schneiderian membrane and periosteum, lining the fossa, were not ruptured, so the nasal passage is normal. The line of fracture was through the antrum of Highmore, and at the lower margin of the infra-orbital foramen. The unusual feature of the case is that there is no perceptible scar or deformity of the face. This serves to illustrate how extensive injuries about the nose and throat might heal and leave no deformity.

SELECTED PAPER.**Chronic Renal Disease.*****Etiology and Pathology.**

By E. G. MATSON, M. D.

Professor of Pathology in the Western Pennsylvania Medical College of Pittsburg.

Prognosis and Treatment.

By H. A. HARE, M. D.

Professor of Therapeutics in the Jefferson Medical College of Philadelphia.

ETIOLOGY AND PATHOLOGY.

The unit of kidney construction is the uriniferous tubule together with its attendant blood-vessels. Each one of these is a complete organ in itself, which may discharge its functions as long as it is intact, irrespective of the condition of its fellows. Since the entire number doubtless more than suffices for the needs of their owner, and the animal economy, if given time, can accommodate itself to an increasing deficiency in one of its organs, it is not remarkable that the slowly developing inflammations should be in the highest degree insidious in character.

The position of the kidneys is well calculated to protect them against external influences. Among glands provided with ducts they alone have the advantage of communicating with aseptic cavities—that is of course in the normal state. In consequence we are justified in assuming that the inflammatory disturbances of these organs when they are not extensions from the genito-urinary tract lower down, arise from the action of irritants carried to them by the blood-vessels.

That poisonous substances dissolved in the blood can excite inflammation in passing through the kidneys is made obvious by the action of the metallic poisons, such as lead, arsenic, mercury, phosphorous and others. The same mode of operation can be claimed for alcohol.

Toxic substances of bacterial origin undoubtedly cause the renal complications of the infectious diseases, whether acute or chronic. So much can be confidently affirmed in the case of diphtheria, of which the well known toxins have the power to excite severe inflammation in tissues into which they are introduced. In some infectious diseases, such as pyæmia and typhoid fever, the specific organisms are carried to the kidney by the blood current in which the nephritis is rather an extension of the original disease than a complication.

Since these substances act from the blood-vessels the effects are frequently visible in other organs, especially in the liver. There are two reasons why the kidneys should be especially affected by these general causes; in the first place the amount of blood and therefore of its dissolved poisons which passes through the kidneys is very great, as is evident from the size

*Read at the meeting of the Medical Society of the State of Pennsylvania, at Johnstown, May 18, 1899.

of its vessels as compared with the size of the organ supplied. In the second place the kidneys play the most important part in the elimination of poisons. The operation of excretion must be considered to expose the tissues of these organs to the noxious influences of these poisons in greater degree than if they only passed through their vessels.

While in these cases the etiology of renal inflammation is intelligible enough there still remains a considerable number of cases in which the nature of the poison in the blood is entirely unknown. The fact of its existence cannot be proved, though we are led to assume it from the apparent necessity for a hematogenic cause. For example, toxic substances may sometimes be absorbed from the intestinal tract.

Exposure to cold is always set down as a cause of renal inflammation. The mode of operation is not obvious, but perhaps the fact is demonstrated.

These are the exciting causes of nephritis, both acute and chronic. The predisposing causes, except the conditions of life which have a direct relation to the exciting causes, are not so much dwelt upon. The kidneys of very old people are rarely entirely normal. These senile changes closely resemble the more chronic forms of inflammation. It is possible that these tendencies arise at a much earlier period of life in some persons in whom comparatively slight exciting causes, resisted, by most individuals without damage, produce disproportionate effects.

The chronic renal inflammations arise from the causes indicated acting in slight degrees, but for a longer time, or follow the subsidence of an acute attack. In general, a chronic inflammation implies a continuous irritant. Rest is, however, essential to the healing process, but the kidneys must work without intermission. The infectious diseases generally cause acute processes which pass away in case of recovery without a trace. Yet it is doubtful whether evidence exists to decide how often the attacks of infectious diseases in early life are the cause of renal symptoms at later periods. With a long latent period the connection could not be traced. It is easily possible that death from Bright's disease will be less common than now, should infectious diseases be entirely suppressed in some future epoch of the human race.

The process of inflammation in the tissues of the kidney is not essentially different from that in other organs. It is made up of vascular and degenerative changes on the one hand, and proliferation and organization of the interstitial connective tissues on the other. The more acute the process, the more closely it resembles the phenomena of inflammation in Cohnheim's experiment. The longer the duration the greater the predominance of the hyperplastic processes.

In chronic inflammations everywhere proliferation of the connective tissues takes place. When this new connective tissue fills a gap it may serve a useful purpose, though the scar contains no glands; when it is formed in the depths of vital organs, it is as much out of place as the tissues of a tumor. The distinction of exudative and non-exudative forms is scarcely valid, since the

urine in both forms contains albumins, though in very different degrees. The terms parenchymatous and interstitial describe two extremes, but leave many intermediate forms out of the classification. A classification based entirely upon post-mortem appearances has the disadvantage of unduly exalting a single phase in a process which extends over years. It is evident that the large white kidney was not a large white kidney from the first and that the contracting kidney must have passed through many stages before reaching the condition found at death.

There are no means of direct observation of the whole succession of changes which take place ending with the state which produces death, and we are consequently left to inference. We can fairly assume that the contracting kidney has never passed through the phase of a large white kidney, since the latter is inconsistent with life. If we turn from the entire kidney to a consideration of the units which compose it, this difficulty does not arise.

Death occurs at the period when the kidneys are unable to perform the functions in the degree required for life of the organism. The destructive process of a disease of a vital organ, when less rapid than acute yellow atrophy of the liver, is never complete at the moment of death. If all the uriniferous tubules are equally affected by the morbid process, the pathological anatomy is necessarily different from the condition found when the disease creeps from tubule to tubule and from cell to cell, destroying some completely before others are at all impaired. In the latter case, the amount of destruction may be greatest because the economy has had the longest time in which to accommodate itself to an imperfectly performed function, and symptoms may be delayed until the redundant machinery is used up.

The uriniferous tubules are found in the cortex entangled together with numerous vessels, but are associated with very little connective tissue except at their beginning in the capsule of Bowman, which is made up of a fibrous membrane. The part known as Henle's loop, dips down into the medulla. The brunt of the inflammatory processes, especially the degeneration and atrophic changes, falls upon this portion. Swelling is indicated by thickening of the cortex. It is also thickened by a cellular hyperplasia. Change in color to gray or yellow, indicates varying degrees of cloudy swelling and fatty degeneration. The lighter colors may be varied with red, due to congested or hæmorrhagic portions. Interstitial tissue, when it has reached the fibrous stage, causes the capsule to be adherent, the cortex to be diminished in thickness due to atrophy of the epithelium of the uriniferous tubules, the organ harder, and generally smaller.

It remains to describe the different forms of the kidney as found post-mortem, after death from chronic renal disease.

Under the head of parenchymatous inflammation may be placed the large white kidney with a thick white cortex and swollen and congested pyramids. The capsules strip readily. Instead of being quite uniform, this kidney may be mottled by congested and hæmorrhagic places in the cortex. Again the fatty degenerative changes may be more complete, the capsule

somewhat adherent, and the organ not enlarged or less than normal in size. Most of the victims of parenchymatous nephritis have one of these forms of kidneys. Here, too, are classed kidneys of small size, red or red mottled or gray in color with diminished cortex and adherent capsules.

Under the head of interstitial nephritis, contracted kidneys, considered to be secondary to parenchymatous nephritis, and primary interstitial nephritis, exceedingly insidious in origin and long in duration, are classed. In interstitial nephritis the epithelium has largely disappeared, the interstitial tissue has become abundant, the vessels are commonly thickened and in a state of hyaline degeneration. Since there is an increase in the connective tissue, while there is an atrophy of the epithelial, the kidney is not always smaller than normal. The capsule is adherent and the organ is firmer than normal. The cyanotic kidney, the result of valvular heart disease, often terminates in the interstitial form.

PROGNOSIS AND TREATMENT.

No sooner does the physician recognize the presence of inflammation in the kidney, than the question arises in his mind and in the mind of the patient, "What is the prospect of recovery, and what is the probable duration of life, if the renal condition is incurable?" Before it is possible for us to discuss these interesting points, it is necessary for us to divide the various forms of nephritis into groups, which are based upon the renal changes present in each. At the very first, we must separate acute nephritis from the chronic degenerative forms of renal disorder, because its causation, duration and pathological conditions are so different from the chronic type, that it is an entirely different entity. This fact has been well emphasized by the paper of my colleague in this debate, and therefore, I need not describe what the anatomical and etiological differences are. Suffice it to state that the prognosis of acute diffuse nephritis is as a rule quite favorable. Thus we find that a large proportion of these cases recover, but the percentage of recoveries is difficult to determine, since other conditions are often associated with the renal change. Thus in the acute nephritis of childhood dependent upon scarlet fever there is, aside from the toxæmia which arises from inactive kidneys, the additional toxæmia of the scarlet fever poison itself, and in many cases sepsis from infection from other micro-organisms, such as the streptococcus, which aid in hastening a fatal issue.

Further, the degenerative changes in the heart and vessels, the pulmonary and pharyngeal complications and the fever all tend to throw additional factors into the scale and tend to cause death in scarlatinal nephritis, aside from the evil influence produced by this condition itself. In the case of children, the prognosis of an acute nephritis complicating scarlet fever is favorable in direct proportion to the severity of these general influences, and the longer the child survives these inimical influences, the greater probability is there of recovery. This is of course true of all prognosis, but it is

especially true of this period of life, for children possess such wonderful reparative power, that if they can but survive the mixed toxæmia for a few days, there is great probability of the damaged cells in the kidney being repaired or replaced, so that normal renal function will be possible. It is true, as is well emphasized by Strumpel, that every case must be judged with great caution, partly because it may be the starting point of subsequent chronic renal disease, and partly because dangerous sequelæ may develop in cases which at first seem mild. There are three factors of prime importance in this class of cases, namely, the degree of toxæmia or severity of infection, the degree of anasarca because it shows vascular, cardiac and renal trouble, and produces serious complications by mechanical pressure, and the presence of marked signs of irritation of the nervous system or of depression of its activity by poisons.

Given a case of acute nephritis in a child, it is evident from what we have already said that if the acute conditions produced by the inactivity of the kidneys can be survived, recovery will in all probability take place. Some of these cases, however, develop such a profound degree of toxæmia that the condition is hopeless, all the secreting cells of the kidney being destroyed or their functions set aside so completely that death ensues before the kidney recovers sufficiently to eliminate toxic materials from the blood. When this condition is developed, remedial measures are necessarily to a large extent impotent, because the condition is so far advanced. As a matter of fact, in the acute nephritis of both children and adults, the largest part of treatment, if it is to be successful, must be prophylactic, and if precautionary measures are taken, grave renal complications can often be avoided. This is well illustrated by those cases of scarlet fever in children in which the primary manifestations of the disease are very mild, so mild that the careless physician and nurse do not insist upon the patient remaining in bed, but nevertheless, in a short time evidences of advanced kidney involvement develop, and death speedily ensues.

By the administration of mild alkaline diuretics, copious draughts of pure water, the use of purgatives will rid the body of toxic materials through the bowels, and improve the abdominal circulation, much can be done towards preventing severe renal involvement. Further than this, by the use of hydro-therapeutic measures which improve the circulation, such as cold sponging and friction, stasis of the blood in the kidney can be avoided and a large amount of toxæmia set aside, just as we set it aside in typhoid fever by such measures, and it is a well-known fact, that even when toxæmia is advanced and renal secretion is scanty, the placing of the patient in a warm bath and then dashing cold water over the head, shoulders and back will by the circulatory reaction which develops, restore the patient to consciousness and increase urinary flow. Such treatment also increase the elimination of poisons by the skin.

It is well to emphasize the fact that should cold water be employed, active friction must be employed with it, and reaction must be produced, for

if friction is not employed, and if the bath is continued for a long period of time, so that the circulation is impaired, more damage is done than if this measure were not employed. In other words, the use of hydro-therapy in this condition must be governed by the knowledge of the methods by which it should be employed.

When we come to the consideration of the two forms of chronic nephritis, the parenchymatous and interstitial, we find that prophylactic treatment can rarely be instituted, since both conditions are so insidious in their onset that the patient is usually well advanced in the disease before he presents himself for treatment. Prophylactic treatment in these cases must therefore be devoted to the prevention of the spread of the disease as far as possible, the relief of symptoms which may be annoying or dangerous, and the institution of a course of dietetics and medication which will also tend to relieve symptoms and to enable the patient to avoid throwing extra strains upon his kidneys. In other words, the mode of life to be followed by the patient is an important point with which the physician must deal.

I have recently seen a case in consultation which emphasizes this fact very strongly. A patient, a man of 50 odd years, apparently in perfect health, insisted upon riding some 30 or 40 miles on a bicycle at a high rate of speed. The subsequent course of the disease proved that he had been suffering for a number of months with an insidious nephritis, which immediately became severe in its manifestations, causing his death at the end of three weeks. Doubtless the violent strain put upon his heart and kidneys by this exercise, precipitated the fatal issue, and had the patient been warned of the danger of such excessive exercise, his life might have been prolonged. On the other hand, renal cases should not be deprived of all exercise, unless it is evident that a feeble heart requires rest.

In regard to the question of diet, it is evident that no cast iron rules can be laid down, and many cases of chronic contracted kidney, unless they are markedly gouty, can have a liberal diet, provided it is one which is easily digested, and not calculated to produce gastric and intestinal disturbances. In other words, those patients need not have their meat cut from the diet list, but should be allowed to take good wholesome food, provided that it is not taken in excessive quantity.

In chronic parenchymatous nephritis, it has been held by many practitioners, as is well known, that it is our duty to eliminate from the diet list eggs and red meats; on the other hand, many physicians of large experience are coming to the belief that this is depriving the patient of a large amount of nourishing food, which in reality he can take with impunity, provided that it is not taken in excess of the needs of the system.

Probably the most satisfactory rule to be followed in these cases is to be governed by the effect of the administration of eggs and meats upon the patient, and upon his elimination of albumin. If on the administration of eggs and meat his albuminuria is markedly increased, and he does not seem to do so well in general, it is evident that these articles should be taken from

him. If on the other hand, his general health and strength improve by their use, and the albuminuria is not increased, it is evident that they should be allowed. In some cases, where the albuminuria is marked, the use of albuminous food seems to take the place of the albumin which has been lost through the kidneys. Of course in cases of acute nephritis, it is advisable to avoid albuminous food until the acute period of the disease is passed by.

Where there is marked diminution of urinary flow, as we ordinarily find it in parenchymatous nephritis, one of the most important functions of the physician is to increase this secretion. Drugs have been much abused under these circumstances. Too often they are administered without clear ideas of what they are to accomplish. If it is believed that the scanty urine depends upon inactivity of the renal epithelium, the administration of caffeine may be wise, or in other instances the production of free diuresis by the use of bitartrate of potassium and juniper berries in infusion may produce the best results. This old combination, which has to a large extent dropped out of use with some practitioners, is much too valuable to be lost sight of.

If, on the other hand, an examination of the heart indicates that this organ is unduly feeble, and that the albuminuria and scanty renal secretion depend upon renal stasis, then digitalis or strophanthus alone or combined with juniper berries and bitartrate of potassium are very useful. It has been thought by some persons that it is advisable in this class of patients to increase urinary flow by the administration of copious draughts of pure water. While this may be good therapeutics in a certain number of cases, it should be governed by the dropsical condition of the patient; if there is deficient renal elimination of fluid, because the kidneys are unable to pass it out of the blood, it is manifest that copious draughts of water will not remove impurities from the body, but will simply tend to increase dropsical tendencies.

So far as I know, there are no drugs which distinctly decrease the elimination of albumin in advanced parenchymatous nephritis, and it seems to me doubtful whether the attempts to check the escape of albumin by such drugs is wise, since if they succeed they probably also decrease the elimination of impurities from the blood. Most of these remedies are astringents which are supposed to act by contracting the renal blood vessels. There is, however, one drug which is to be remembered in cases of parenchymatous nephritis for the anæmia, namely iron. On the other hand, this drug is too much relied on by many physicians. Aside from the fact that when given in Basham's mixture, a diuretic effect is produced, the large doses of iron which are frequently given in this way probably do more harm than good, as they tend to produce constipation, and only very minute amounts of iron can be utilized. Probably spirits of mindererus when given alone, would produce almost equally good results, and if minute doses of iron are given in pill form, equally good influences would be produced in combating anæmia.

For the relief of dropsy, there is no doubt that hydragogue purgatives are useful in many cases. Oftentimes the unloading of the intestines by the

use of purgatives decreases the congestion of the liver which is sometimes met with in these cases owing to secondary cardiac complications, and improves the patient wonderfully. Equally, if not more important, than the use of purgatives, is the use of copious sweating produced by hot air baths or by the hot pack. These therapeutic measures are of the greatest possible value, and are so well known that it is not necessary for me to describe them in this paper.

In my experience, the so-called medicinal diaphoretics are not of very great value. The profession is learning more and more that pilocarpine is too depressant to be employed in most of these cases, and either because of its depressing effect upon the heart, or by reason of its causing a profuse outpouring of secretion into the bronchial tubes, its use is apt to produce that gravest of all complications in nephritis, namely edema of the lungs. I do not think it ought ever to be employed in combating uremia, except perhaps when given in very minute doses, to aid the action of the hot pack, and then the circulatory system should be assisted by minute doses of strychnine, which drug, however, may be contra-indicated if the poisons of the disease seem to be producing great nervous irritation.

This important subject can well take many more minutes of your time, but the limitations which necessarily exist, force me to close this discussion. In doing so, however, let me remind you that when uremia is once well marked, hypodermoclysis or intravenous transfusion of normal saline solution will oftentimes produce excellent results. Better results are obtained by this means in cases of uremia coming on as a result of chronic contracted kidney than in those due to parenchymatous nephritis, and when dropsy is marked they are least valuable.

In plethoric patients or others with a high arterial tension, venesection is often advantageous.

Last of all, I may say a word to you in regard to the contradictory views concerning the use of morphine in uremia. These contradictions, I believe to be rather more apparent than real. Uremia is the result of a complex poisoning. In some instances poisons seem to be present which exercise a powerful depressing effect upon the nervous system, in others their effect seems to be that of irritation. Probably those cases which have been greatly benefited by the administration of morphine are cases in which the sedation of the nervous system produced by this drug is beneficial, whereas in those cases in which this condition has not been present, the administration of morphine has simply increased the nervous atony. On the other hand, Sir George Johnson has recorded instances in which, in his opinion, the employment of morphine has caused rapidly recurring and ultimately fatal convulsions, perhaps by diminishing the excretory work of the kidneys and producing constipation, and in Nestor Tirard's recent book upon renal disease, he uses these pregnant words in regard to the use of morphine: "I have always refrained from the use of a drug which might produce present comfort at the cost of the life of the patient."

As I have already said, it is evident that the question of the administration of morphine must be decided in each individual case, and that it cannot be ordered for or denied to every patient who presents himself with this grave malady.

North Carolina Medical Journal.

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Editorial.

THE DRUG HABIT AMONG PHYSICIANS.

In a recent paper read before the New York State Medical Association, Dr. T. D. Crothers presented some remarkable statistics showing the prevalence of the drug habit among physicians. From a personal study of 3,244 medical men, he claims to have found 21 per cent. who were either secretly or openly the victims of alcohol or drugs. He draws the conclusion from his investigations that 6 per cent. of the physicians of this country are opium inebriates—a very startling statement. He also says that a large number of physicians die as a direct result of their use of morphine by means of hypodermic syringe. Dr. Crothers' paper has naturally caused a very considerable degree of comment, not only in the medical press, but in the newspapers as well, for it is a question in which the public at large is interested, since as the writer very correctly says, no patient is safe in the hands of a physician who takes morphine.

While no one could consistently deny the conclusions arrived at in this paper, as regards the moral and physical evils of the opium habit, there are many who will take exceptions to the facts upon which the conclusions are based. It is indeed much to be doubted if of the 100,000 physicians of this country, 21,000 are drug and liquor habitues. From personal experience and observation we would also be inclined to dissent from the opinion that 6 per cent. of the profession are the pitiable victims of morphine or opium in any form. Dr. Crothers, who is said to have made a specialty of this subject, is at any rate hardly justified in fastening such an indictment upon 100,000 men from the study of 3,000.

On the other hand it cannot be gainsaid that of the three learned pro-

fessions, ours is peculiarly susceptible to the insidious drug habit. The reasons for this are sufficiently obvious to any one acquainted with the daily life of the busy doctor, particularly the general practitioner. It has been our observation that the drug habits of the profession are found most often in the smaller towns and thinly settled sections, whether because of the monotonous life lead by the physicians in these isolated points, or due to their laborious work, we cannot say. Then again the mere fact that he has always the means at hand for alleviating pain with the probability of being enabled to pursue his work without the loss of any time, often renders the medical man only too prompt in resorting to a narcotic in his own case, where in that of another he would prescribe a slower, perhaps, but safer means of relief. Once this insidious habit has been firmly fixed, the unhappy victim has in the great majority of cases—some say all—passed beyond the reach of human help. We entirely agree with Dr. Crothers, that it would be far better for the physician in case of sickness, where so powerful an anodyne as morphine is required, to have it administered by a brother practitioner, and never, in his own case, by himself. The same thing is even more true as regards the layman, in whom the majority of instances of opium habit are the direct result of taking into their own hands the employment of powerful anodynes. It is not always an easy matter to recognize the habitual user of opium, even in fairly large quantities, although sooner or later, despite his skill in concealing his weakness, it will be patent to the close observer. We remember to have been told by a highly intelligent physician that he always suspected the secret use of opium, where with no sufficient reason, an individual habitually sat up most of the night and spent the greater part of the day in bed.

All observers are unanimous in agreeing upon the disastrous effects of the chronic use of opium on the mental and moral functions of the individual, in fact, the psychic symptoms overshadow the purely physical ones. Of all the alkaloids, morphine is most frequently the cause of insanity. It would seem entirely superfluous to warn physicians, in the face of so many pitiable wrecks from this cause, against carelessness in the use of this powerful remedial agent, not only with themselves, but with their patients.

THE BACTERICIDAL POWER OF SUNSHINE.

Some of the older of our readers may perhaps remember something of what thirty years ago was called the "blue glass craze." The subject of the therapeutic properties of the solar rays has recently been revived by a publication of the observations of two Danish scientists, Tinsen and Bie (*Philadelphia Medical Journal*, Oct. 7th, 1899), although the curative influences of sunshine in certain conditions has been recognized for a long time. The two observers referred to, however, seem to have reduced the matter to a much more scientific footing, and from the report, have been very successful in the treatment of tubercular skin diseases—notably in lupus vulgaris in which the method seems to have been remarkably beneficial. To a lesser

degree alopecia areata was found to yield to the same treatment. Tinsen has found that the therapeutic properties of the solar rays are present in blue and violet rays, these possessing the bactericidal power. He therefore excludes the red and concentrates the remaining rays by passing the sunshine through a lens filled with a blue solution. It is claimed that direct sunlight will kill tubercle bacilli in two or three hours, and other germs are equally susceptible.

OPPOSED TO VACCINATION.

Our friends the Christian Scientists are getting to occupy a very prominent place in the courts all over the country. The most recent instance of their defiance of the law occurred in Americus, Ga., where, according to the press dispatches, almost the entire body of the elect were brought before the mayor's court to answer to the charge of refusing to submit to the ordinance requiring vaccination of all unprotected persons. It is stated that among the number were twenty ladies, many of them prominent in the community. They will probably be given the choice of going to jail or being quarantined in their homes. A Mrs. Raines, for the same offence, was sentenced to jail for thirty days. That peculiar obtuseness of mind to anything savoring of reason or common sense, which is so highly developed in the followers of Mrs. Eddy, is well exhibited in the present case, for, if there is anything in medical science more than another susceptible of incontrovertable proof it is the efficiency of vaccination as a prophylaxis against variola. That portion of the crebrum, however, which takes cognizance of facts or accepts the evidences of the five senses seems to respond no longer to its natural stimulant in the brain of the Christian Scientists. So long as these people confine their practice to matters concerning themselves alone, no one has a moral or legal right to interfere—an individual is entirely at liberty to treat himself by any method he chooses, or to dispense with treatment altogether in so far as his liberty does not infringe upon the rights of others—but when freedom in this respect jeopardizes the health of the community by ignoring, for instance, the ordinary safeguard observed by all reasonable men against the spread of highly contagious and deadly diseases, his so-called individual rights cannot be maintained in law or in morals.

Malaria of the Central Nervous System.—Marinesco (*Comptes Rend. de la Soc. de Biol.*, 24, 3, 1899) reports an interesting case of malaria in which the autopsy revealed among other details a severe degree of nerve disease. The examination of the brain showed that the gray matter was completely discolored and almost violet in hue; the white matter also was of a mottled grayish blue. On microscopical examination it was discovered that this discoloration was due to an immense number of minute pigmented bodies which filled the arterioles and capillaries of the brain and cord. These small pigmented bodies were the Laveran malarial parasites, and their presence in such overwhelming numbers in the vascular system of the brain and cord must be considered a great rarity.

Book Reviews.

Lea's Series of Pocket Text-Books—Malsbary's Practice of Medicine. Just ready. A Pocket Text-Book of Theory and Practice of Medicine by George E. Malsbary, M. D., Assistant to the Chair of Theory and Practice of Medicine, Medical College of Ohio, Cincinnati. In one handsome 12mo. volume of 405 pages, with 45 illustrations. Cloth, \$1.75, net.

This is the third of the sixteen volumes composing Lea's Series of Pocket Text-Books, and a review of its pages shows the present one to be fully up to the standard of excellence exhibited in the two preceeding volumes. The idea underlying the publication of a series of text-books of this kind is to give in relatively small bulk an accurate but brief epitome of the subject in a form readily accessible to the busy doctor or to the student. All the standard authors have been consulted in the preparation of the book, and the most recent advances of medical science are placed before the reader. The various diseases are treated in a systematic manner and no really important fact is omitted in the text. As a ready reference book, containing in concise but sufficiently full form for all practical purposes, the essential facts of practice, the present volume will prove most satisfactory.

Saunders' Question-Compends, No. 14.—Essentials of Diseases of Eye, Nose and Throat.—Part I. Essentials of Refraction and the Diseases of the Eye, by Edward Jackson, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; Attending Surgeon to the Wills Eye Hospital; Member of the American Ophthalmological Society; Fellow of the College of Physicians of Philadelphia, etc. Part II. Essentials of Diseases of the Nose and Throat, by E. B. Gleason, S. B., M. D., Surgeon in Charge of the Nose, Throat, and Ear Department of the Northern Dispensary of Philadelphia; Formerly Assistant in the Nose and Throat Dispensary of the Hospital of the University of Pennsylvania, and Assistant in the Nose and Throat Department of the Union Dispensary; Fellow of the American Academy of Medicine; Member of the German Medical Society, of the Philadelphia Polyclinic Medical Society, etc., etc. Second Edition. Revised. 124 Illustrations. W. B. Saunders, Publisher, Philadelphia. Price, \$1.00, Net.

This is one of an excellent series of question-compends, giving in the form of questions and answers the essential facts of the subject dealt with. The text is given wholly to the settled facts of the particular branch of practice treated of, as it is obvious that to enter upon debatable ground and theoretical dissertation would in the present instance be entirely beside the object sought. In our opinion this is one of the best of the "Question-Compend" series we have seen, and to any one desiring to post himself upon this specialty, or who contemplates taking a special course of instructions, the present volume is highly recommended.

The Coming Age, for November 2nd, opens with "The Art Outlook for America" by F. E. Elwell. This is followed by "X-Ray Vision or Super-Normal Sight" by Frank W. Brett, M. D., in which is described the peculiar power possessed by his little son, a healthy boy of twelve, of seeing, when hypnotized, the bones of the living body—a number of cases are cited to illustrate this peculiar power of sight.

R. Osgood Mason, M. D., writes entertainingly of "The New Therapeutics," viz: Hypnotism and suggestion when in the hypnotic state.

"Miss Willard's Christian Socialism" is the title of a paper by Eltweed Perry.

"The Church and Social Problems" by Rev. S. H. Spencer, A. M.

"The Supreme Sphere Above Humanity and its Demand" is cleverly handled by Prof. J. R. Buchanan, M. D. Many other papers and interesting items are found in this number.

The Dixie Magazine for November contains two delightful Southern Romances, "The Revenge of Copper Kettle" by Annie T. Colcock, illustrated,

and "A Story in Black in White" by Alice Baxton, illustrated. "The Aboriginal Population of The Chesapeake" a historical sketch by Claudia Stewart Coles, tells of the passing of the "Red Man" of that region.

Elihu S. Riley contributes a "Historical Baltimore Romance," illustrated, in which Jerome Bonaparte, King of Westphalia, is one of the principal figures. On the whole, this number is a strong one.

HOSPITAL NEWS.

Recd J. (OS) 74:305, #10, 26 Nov 1899.

The W. G. Newman, Jr., Hospital.—On November 5th the W. G. Newman, Jr., Hospital, in Salisbury, N. C., was formerly opened. A number of citizens, composing a select crowd, attended the opening and dedication. The opening was an auspicious one indeed. The Board of Lady Managers gave an elegant spread to friends present.

The hospital was dedicated with appropriate services. Dr. Rumble was master of ceremonies and he was assisted in the services by Revs. L. E. Busby, J. R. Brooks, Father Joseph, Gerny Weber, John Wakefield, M. E. Parrish and J. H. Weaver. The building was tastefully decorated with potted flowers and plants and cut flowers. The house was thrown open for the visitors, and all expressed themselves as highly pleased with the apartments and the excellent arrangement of the interior for the work for which the place was dedicated.

This hospital is the enterprise of Dr. J. W. Long, who is well-known throughout the State, and Dr. W. A. Newman, until recently a citizen of Virginia, and has been equipped through the liberality of W. G. Newman, the millionaire copper mine owner, and the institution has been appropriately named after Mr. Newman's little son, who recently died.

The hospital opened with twelve beds, and has already had to order six more to accommodate the increasing number of patients. A training school for nurses will also be conducted at the institution.

Statesville Hospital.—Through the benevolence of Mr. C. S. Billingsley, a fully equipped, modern hospital will soon be erected in Statesville. We do not know by what name it will be called, but we know the doctors of Statesville, all of them, and we predict good work will be done within the walls of Statesville Hospital.

Charity Hospital in Richmond.—The plans have recently been completed for the erection and maintainance of a large charity hospital in the city of Richmond, Va. The building will cost about \$100,000, and will be the largest in the South, excepting one in New Orleans. This institution will be under the control of the Medical College of Va. The moving spirits in the matter are Drs. G. Ben Johnson and Emon G. Williams.

The New St. Luke's Hospital.—Finding it necessary to obtain more room in order to accomodate the increasing number of patients, Dr. Hunter McGuire is building a new hospital on the corner of Grace and Harrison Streets, Richmond. The work done at old St. Luke's will "go down the ages," and we predict an equally successful career for the new St. Luke's.

Southern Surgical and Gynecological Association.—The next meeting of this body will be held in New Orleans, December 5th, 6th and 7th.

Review of Medical and Surgical Progress.

Epitome of Surgical Progress.

By JOHN H. GIBBON, of Philadelphia, Pa., and HUBERT A. ROYSTER, Raleigh, N. C.

The Surgical Treatment of Perforation of the Bowel in Typhoid Fever.—By W. W. Keen, M. D., L. L. D., of Philadelphia (*The Philadelphia Medical Journal*, Nov. 4th, '99).—In this paper, read before the N. Y. State Medical Association, the author first discusses the question, "Shall we operate at all?" and answers it emphatically in the affirmative. Early in '98 he had collected 83 cases, operated upon for this condition, and found a recovery rate of 19.3 per cent. Since then he has added to the list 67 cases with a recovery rate of 26.9 per cent. Combining these, the rate of recovery is found to be 22.7 per cent. Comparison is made to Murchison's table of perforations which were not operated upon, and the recovery rate here is 5 per cent. These figures answer the question of the advisability of operation. Of the whole number of 150 reported cases, 90 were reported by American surgeons, 21 by British and 15 by Russian surgeons. The next question discussed is, "In what cases shall we operate?" and he says in all, unless recovery is evidently hopeless, and then calls attention to a case operated upon three times for perforation by Firmey with recovery. Between the ages of 15 and 25 years is the most unfavorable time to operate, the most favorable being over 25 and, especially, under 15 years. In the cases operated upon during the second and third weeks of the disease the recovery rate was 16 per cent., three times greater than in the cases not operated upon, and in the fourth week this recovery rate is nearly doubled.

The third question is, "When shall we operate?" The author has found in analysing his collected cases that the recovery rate was much greater in the cases where operation was done between the 12th and 24th hour after perforation, but does not recommend waiting twelve hours to operate after a diagnosis is made, unless the patient is in shock. The author is plainly in favor of not operating immediately after the perforation, when the patient is generally suffering from severe shock. Cushing has proposed operation in the perforative stage, but the difficulty here lies in making a diagnosis. As the question of diagnosis, even after perforation has taken place, is often a difficult one, it is recommended that the physician call a surgeon in consultation as soon as there arises any symptom indicative of perforation, so that the surgeon may choose his time for operation, just as in cases of appendicitis.

The fourth question discussed is, "How shall we operate?" Keen considers Cushing's method of operating under cocain anæsthesia the most important improvement made in the technique in the past two years. The incision is best made in the right linea semi-lunaris, or through the right rectus muscle. The ulcer when found is then turned in by the use of

Halsted's mattress suture, without making any attempt to pare the edges of the ulcer. An extensive ulcer or two adjacent ulcers may make closure impossible and render resection necessary. In seven cases of resection two recovered. Any points showing a tendency to perforate should also be sutured as a preventive measure. He lays great stress upon the necessary cleansing of the peritoneal cavity with salt solution. The question of drainage will have to be decided by the condition of the peritoneal cavity at time of closure. Since the publication of his book, Keen has changed his view regarding the advisability of repeated operations, as several cases have been saved by a second and even a third operation.

Conclusions.—1. "The surgeon should be called in consultation the moment that any abdominal symptoms indicative of possible perforation are observed."

2. "If it be possible to determine the existence of the preperforation stage, exploratory operation should be done under cocain-anesthesia before perforation, shock, and sepsis have occurred."

3. "After perforation has occurred, operation should be done at the earliest possible moment, provided,

4. "That we wait till the primary shock, if any be present, has subsided."

5. "In a case of suspected but doubtful perforation, a small exploratory opening should be made under cocain to determine the existence of a perforation, and if hospital facilities for blood-count and for immediate bacteriological observation exist, their aid should be invoked."

6. "The operation should be done quickly, but thoroughly, and in accordance with the technique already indicated."

7. "The profession at large must be aroused to the possibility of a cure in nearly, if not quite, one-third of the cases of perforation, provided speedy surgical aid is invoked."

Some remarks on the symptoms of Broncocele and the Results of Operative Treatment, by Francis J. Shepherd, M. D., of Montreal (Annals of Surgery, November, 1899).—Although goitre may involve both lobes of the thyroid gland, it is usually confined to one; especially is this true of cases met with in this country. The growth is usually encysted, cysts being multiple or single and contents solid or semi-solid. In the rarer interstitial variety the gland is uniformly enlarged, occurs chiefly in girls at puberty, generally disappearing in a few months. The symptoms of encysted solid forms of goitre resemble those of Graves's disease, shortness of breath on exertion, excitability, nervousness and sometimes tachycardia, and are due to an excessive amount to thyroid tissue, and partly to pressure. In myxœdema, where there is absence or loss of thyroid tissue the symptoms are the opposite of these, namely, dullness, stupid expression of face, slow pulse, low temperature, sleepiness, etc. The author maintains that the symptoms of Graves's disease, or exophthalmic goitre, are the result of too much thyroid tissue, and that the severity of the symptoms increase pari

passu with the enlargement of the gland. In corroboration of this idea he refers to many cases operated upon and either cured or benefited by the removal of a large part of the gland. That pressure alone is not responsible for this set of symptoms is proved by his experience that when the cyst contents are fluid and not solid the symptoms are not present. In true Graves's disease, the enlargement of the gland not being localized and encysted, operation does not offer a great deal of hope, and the operation is not without danger, which, however, is largely due to the anæsthetic. Local anæsthesia is to be used always in these cases, and even then the operation is dangerous, Kocher losing two out of fifteen cases.

It is the author's custom to recommend operation, in all rapidly growing tumors of the thyroid, especially if they be of the solid form, and if there be dyspnœa the operation becomes urgent.

Operative Procedures.—In simple cysts, when single, enucleation is to be practised, incise the gland until the blueish-white capsule of the cyst is reached. The author recommends evacuating the contents after cyst is exposed, as it enables the operator to remove it through a smaller opening in the gland itself. Enucleation is much more difficult in the solid forms, as the vascularity is much greater. Even in these cases he opens the cyst and removes a portion of it before enucleating it. In the interstitial cases and the true vascular thyroid of Graves's disease, in malignant disease, or where there are many small cysts, or where the growth is very large, the gland should be excised. In Graves's disease and interstitial cases only one lobe is excised. In the operation of excision, the incision is made along the inner border of the sterno-mastoid down nearly to the sternum and then carried transversely inwards as far as necessary. The most important step is the free opening of the capsule of the gland; when this is done, the gland can readily be delivered and the vessels tied. The superior thyroid should be first tied, then the inferior thyroid, and then the recurrent laryngeal nerve looked for and carefully separated from the gland. The author once divided the nerve, sutured it, and obtained a partial recovery of function.

After-Treatment.—When enucleation is practised the oozing is controlled by packing, which is removed in two days. Other cases are drained for 24 hours.

Advantages of enucleation are, ease of accomplishment, absence of risk of myxœdema, and the safety of the recurrent laryngeal nerve. The disadvantages are, the chance of recurrence and the oozing. In nearly fifty enucleations the author has had two recurrences; one, however was on the opposite side. He has operated on three malignant cases. All died subsequently of recurrence in the lungs. The gland is usually enlarged for years before becoming malignant.

J. H. G.

Sudden Death After Hysterectomy from Congenital Cyst of the Brain. Hunter Rabb (*Cleveland Journal of Medicine*, Sept. '99), reports a case of complete prolapse of the uterus for which he removed the organ by the vagina. The patient exhibited a normal convalescence and was considered

to be entirely over the operative procedures, when on the seventeenth day, while sitting up in bed eating supper, she suddenly became unconscious and died shortly afterward. The necropsy showed a cyst at the base of the brain, between the pia arachnoid and the brain substance, and in direct connection with the fourth ventricle. As to other organs the autopsy was negative, save for a small circumscribed stitch abscess in the line of vaginal suture. It is a matter of great satisfaction to the surgeon, the writer remarks, to know not only from the clinical picture, but also from the results of a carefully conducted necropsy, that death has resulted from some cause totally unconnected with the operation.

H. A. R.

The Significance of Laceration of the Cervix Uteri.—Pantzer (*Memphis Lancet*) summarizes his paper as follows: Cervical lacerations without complications have little significance. Often the cervical laceration is complicated with disease in the adjoining structures, and the collateral conditions are responsible for the suffering. * * * Cervical lacerations attain significance as such when, firstly, in the recent state they give rise to an infection which spreads to adjoining structures; and, secondly, in the remote state, when a pathogenic, notably a gonorrhoeal infection, of the tear occurs. Even in these cases a relatively small per cent. attain a degree of significance calling for operative recourse.

H. A. R.

Treatment of Tapeworm by Injection of Protruding Part With Morphine.—(Dr. J. W. Kime in *Medicine*).—It is very common thing for the parasite to drop down into the lower bowel and reattach itself, with the result that the head and upper portion of the body is retained. In two cases where only a portion of the worm was protruded a ligature was applied to the parasite about three inches below the patient and a half grain of morphine then injected into the upper portion. The portion below the ligature was then cut off and the protruding part passed into the rectum and allowed to remain about ten minutes, when an enema was given with the result that the entire parasite was passed motionless and apparently dead. Without previous preparation, except that the patient takes no breakfast, he is given, about 9 a. m., a dose of infusion of pomegranate, or what is far better, of tannate of pelletierine, with one or two drops of croton oil. The patient should then be kept under the supervision of the physician for two or three hours when movements of the bowels will most probably occur. If only a part of the worm protrudes, the retained portion should be injected with morphine as described above.

The Teaching of Legal Medicine.—The time is not far distant when progressive medical colleges will add the subject of legal medicine to their courses. Medical jurisprudence, it is true, is taught in almost all colleges, but legal medicine is not; and by legal medicine is meant that particular study of the dead body which deals with wounds, and the manner and method of their infliction, and the time of death; the length of time a body has been in water, not by guess-work, but gauged by actual and visible conditions. It also deals with all legal matters of a purely criminal character. Deplorable, yet true, is the fact that there are few physicians who can do more than guess at many of the conditions which arise in a case of homicide.

The ordinary detective can do that, and in the larger cities where the detectives are men of wide experience, they are, as a rule, infinitely better guessers than the average physician.

The trade-marks of murder and suicide are easily recognizable to the physician who has made a study of legal medicine. Such a man will be able to say positively that the rope was placed about the neck before or after death, where a body is found hanging as if in suicide, and where murder is suspected.

A recent case, in one of our inland cities of importance, will illustrate the wide range of guesses, and the advantage of a knowledge of legal medicine. A body had been found, partially dismembered and packed in a box, which was floating in the water of a canal. There was no question as to how the man had met his death. The cause of death, stab wounds in the chest, was apparent. A number of physicians examined the body, and there were nearly as many opinions regarding the length of time the man had been dead in the water as there were physicians. The guesses ranged from two days to two weeks.

A visitor identified the dead body. But the man he named had been seen alive within two days, the shortest time any of the physicians had guessed the body had been in the water.

Then came a physician who had studied legal medicine. He examined the body and declared it had not been in the water twenty-four hours. He had post-mortem conditions to go by and he explained them. The mystery was later cleared up, and it was shown that the body had been placed in the water not more than twelve hours before it was found. There are arising constantly cases in which medical opinion is sought to aid in unraveling the tangled skein of a murder mystery. In cases of this character the value of expert evidence is apparent, but the evidence should be scientifically expert—that of a specialist—beyond question, and not merely a haphazard guess, which is not susceptible of logical explanation.

Medical colleges graduate men and certify them as well-qualified to practise medicine, yet a very small per cent. of these recent graduates could examine a dead body and confidently explain how and when death came. And when one considers that in many instances the life of a human being hangs in the balance, to be swayed up or down by a physician's opinion, it is easily understood why lawyers have taken up the study of medicine in its application to criminal law —*American Medical Quarterly*.

Dr. Joseph Price.—In the field of abdominal surgery few men have achieved the distinction of Dr. Joseph Price, of Philadelphia, whose operative work has made him famous.

Dr. Price's personality is an interesting one. He is full of nervous energy and is a tireless worker. His conversation is what might be called breezy, because of its multiplicity of ideas. He is never at a loss for a moment, and is incisive in his every movement. In personal appearance he is rather above the medium height, with hair plentifully besprinkled with gray and a mustache to match. His face is cut on clean lines, not at all full, but extremely pleasant at all times. In conversation the oddity of his features is remarkable; in his work or when he is in deep thought, one can almost see him think.

A casual observer can see at first glance that Dr. Price spends more time in thinking of his work than of what will be the next prevailing style in clothing. That is one of the reasons he has been so successful. His life, his every thought, all his energy, is devoted to his profession.

There are many curious little mannerisms about Dr. Price. One will do to illustrate his impressiveness. When he talks and he becomes deeply interested, he emphasises his remarks with an out-pointed index finger. He leans forward slightly at such a time, and looks his hearer directly in the face, and one cannot help thinking: "This man means just what he says." Then, when he reaches a most emphatic remark he places his finger on his cheek. That is a Price mannerism. Then he jumps up at the conclusion of the talk and thrusting his hands into the pockets of his coat walks off with a quick, nervous step. Sympathetic and tender he is with patients, and his visits through the wards and private rooms of his hospital brighten up the inmates wonderfully.

Dr. Price is a frequent contributor to journals of medicine, and is often heard before medical societies.

He was graduated from the University of Pennsylvania in the class of 1877, which gave to the profession, to quote from Dr. James Y. Young's introduction to Dr. A. Sydney Roberts's lectures on orthopedic surgery, "several men who have since distinguished themselves in the different branches of their profession: James M. Andrews, Joseph Price, Matthew N. Cryer, Francis X. Dercum, Henry F. Formad, Thomas H. Fenton, Isaac C. Gable, Herman Haupt, Jr., William Hobson Heath, William C. Hallopeter, Rush S. Huidekoper, Fairfax Irwin, John H. Musser, J. Wilkes O'Neil, Andrew J. Parker, George A. Piersoll."

Price started out to do abdominal sections soon after graduation. He went into the lower sections of Philadelphia and got to work. He operated in tenement attics, and in court-yard hovels and in alley cellars. Later he wrote a paper reporting his cases and his work. His hearers looked askance at him, and wondered at his audacity. Then his report was questioned by some one who didn't know Price. At once he overwhelmed his critic and the doubters with proofs. He showed his cases. He had worked and slaved in by-ways and alleys, and he was famous. Such is Dr. Joseph Price, of Philadelphia, one of the greatest abdominal surgeons of the day—by many considered the greatest. He has, at all events, opened the abdomen for disease and injury more times than any other living surgeon.—*American Medical Quarterly*.

Infective Theory of Rachitis.—S. Mircoli was the first to call attention to the presence of staphylococci and streptococci in the bone marrow of children with rachitis, which has since been confirmed by others, and to assert that the rachitic process is an inflammation, the metaplastic ossification not being specific, as it is noted also in the callus of fractures. He also considers the lesions of the nervous system of an inflammatory nature in this disease, and the hydrocephalus a slow inflammatory process. The child may be infected through the skin, lymphatics, pharynx or alimentary canal, and the infection once established it becomes localized at the points where the biologic activity of early childhood is most intense, that is, in the nervous and osseous systems. The intraventricular pressure enlarges the diameters of the head. A genuine cicatricial tissue is noted with the microscope along the lines of ossification, which prevents the lengthening of the bones, while the inflammatory process at the diaphysis softens them and they curve under the weight of the body. He mentions that Glisson has noted actual epidemics of rachitis, and that von Starck has described a tumefaction of the spleen and of the mesenteric glands during the evolution of this disease.—*Presse Med.*, January 28.—*Jour. Am. Med. Asso.*—*Pennsylvania Medical Journal*.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Therapeutics of Infectious Conjunctivitis.*

By DUDLEY S. REYNOLDS, A. M., M. D., Louisville, Ky.

In Mucu-Purulent Conjunctivitis, the therapeutics are: The frequent and thorough removal of the infecting matter by ablutions or irrigation, with such mild, un-irritating saline antiseptic fluids as will aid in the solution of the coagulated material, so sterilizing the surface of the membrane as to retard the growth of the micro-organism, and at the same time possessing soothing and un-irritating properties. Now, since the terminal nerves in the surface of the conjunctiva are irritated by ablutions which do not contain chloride of sodium, it is manifestly clear this salt should constitute one of the ingredients of any solution to be employed for irrigation. Borate of sodium, in solution, containing a portion of the chloride, with enough carbolic acid to counteract by its anæsthetic effect the mechanical irritation of the frequent and prolonged flowing of the stream from the irrigator over the surface of the membrane, constitutes an all-sufficient and rational plan of treatment. The long-established and irrational practice of attempting to cut short infectious conjunctivitis by the application of caustics may be accounted responsible for nearly all the disastrous sequelæ heretofore ascribed to all the varying forms of infectious conjunctivitis. Cases of muco-purulent conjunctivitis treated by caustic applications lead to entropion, symblepharon, cicatricial opacities of the cornea, more or less deep-seated, and xerosis of both cornea and conjunctiva. In fact, all those deformities, cicatrizations, atrophies, sphacelations and staphylooms formerly attributed to catarrhal and purulent ophthalmia are but the natural results of the caustic treatment employed.

All the infectious or catarrhal types of conjunctivitis are retarded by alkaline lotions; all of them are intensified and greatly aggravated by stimulating astringents and caustic applications. The treatment by irrigation is the only rational mode of cleansing; it is easy of application, the means of applying it are universally accessible, and the results are all that could be desired.

In the white staphylococcus forms of infection the irrigation may be done with normal salt solution, or with the following:

Borate of Sodium.....	III
Chloride of Sodium	SS
Water.....	Gal I
Cryst. Carbolic Acid.....	Gr XV

The frequency of the irrigation should be regulated by the accumulation of matter on the surface of the conjunctiva. The upper lid being everted, and the irrigating bag being hung twelve inches above the plane of the patient's eye, the nozzle of the irrigator may be held over the bridge of the patient's nose, and the fluid allowed to run over the everted lid, and the inferior retrotarsal surface, into a mass of absorbent cotton, held on the temple. This should be repeated every half hour, and when the matter

*Abstract of paper read to the Mississippi Valley Medical Association at Chicago, Ill., October 6th, 1899.

accumulates enough to exude between the lids, then this interval should be shortened by one-half. If no accumulation of matter appears, the interval may be increased; say, first, to one hour, then to two hours, and so on until there is no necessity for repetition of the irrigation.

In the gonorrhœal type the same plan may be pursued, but a more efficient irrigation may be made by dissolving three ounces of chloride of sodium, eight grains of bichloride of mercury, and one-half drachm of carbolic acid in one gallon of water, which should be filtered before using. With this the eye may be irrigated every ten minutes from the very beginning of the attack; and, if the treatment is commenced before corneal or conjunctival abrasions occur, it is well nigh certain they will not occur afterward. There is always some danger, in the case of infants especially, of injuring the cornea with the nurse's finger nails, and, lest this accident should come from contact with the nozzle of the irrigator, great care should be taken never to allow the instrument to approach nearer than one inch. To perform the irrigation properly, two persons are required. First, having prepared the irrigation, and placed the patient on his back, one person may evert the lid, and hold a mass of absorbent cotton wool on the temple to catch the outcoming discharge, whilst the other person manipulates the irrigator alone.—*Jour. Eye, Ear and Throat Diseases.*

[Reynolds is always interesting and original—but if you will add to his treatment, in cases having a copious muco-purulent or purulent discharge, a few drops two or three times daily of Protargol, 15 to 30 grs. to the oz. of water, you will cut short the attack and not injure the cornea.—W. H. W.]

The Question of Operation on the Injured Eye in Sympathetic Ophthalmitis.—*Sattler.*—Enucleation of an injured eye (particularly in rupture of punctured sclera, wounds of globe with extension to uveal tract) when active sympathetic ophthalmitis has been excited, is not justifiable, for the reason that after a complete subsidence of inflammatory reaction in both eyes the injured eye alone may offer a chance for partial restoration of sight. Enucleation of an injured eye which has excited sympathetic ophthalmia is justifiable, often a measure of necessity, in cases of traumatism by the lodgement in the eye of a foreign body which cannot be localized. If such eyes are a source of continued suffering, the enucleation should be speedily done, but without hope or prospect of influencing the course of the inflammatory disturbance.

Enucleation of the injured eye with the hope that it will influence favorably the progress of sympathetic ophthalmia has no foundation. There is no proof that it has ever arrested or retarded the fatal course once begun. It must, furthermore, be added that there are no reliable data that it is harmful in the sense that it excites a more rapid or disastrous course in the sympathizing eye.

On the Injection of a Weak Sterile Salt Solution Into Collapsed Eyes.—Knapp in the Archives of Ophthalmology recommends the injection of a sterile physiological solution (or any other sterile and indifferent liquid; for instance, boric acid solution) into the eye with a small syringe under the following conditions:

1. When from lack of vitality in old age or any other cause the cornea sinks in so that the eye collapses in such a way as to prevent the wound from closing exactly, a liquid should be injected until the globe has resumed its shape and the lips of the wound apply correctly.

2. Not only remnants of cataracts, but also cholesterin and other heter-

ogeneous substances, including perhaps, some movable foreign bodies, may be syringed out of the eye with impunity and success.

3. When during the extraction of a complicated cataract the fluid vitreous escapes in such a quantity that the eyeball collapses either totally or in such a degree as to prevent the closure of the wound, liquid should be injected to refill the globe and make the wound close.

4. When from an operation or an injury the eye collapses, injection of a sterilized and indifferent liquid may restore the shape of the globe, facilitate the closure of the wound, and ward off infection from entrance of conjunctival secretion into the eye. Eyes whose chances of recovery are unfavorable, may be saved by intra-ocular injection in a greater percentage than if such treatment was omitted.—*Journal Eye, Ear and Throat*.

Injection and Antiseptic Lavage of the Anterior Chamber.—*Fage*. (From the French).—This writer advocates the injection of antiseptic solutions into the anterior chamber in extensive lesions with hypopion, rather than under the conjunctiva. He uses two or three drops of a $\frac{1}{10000}$ solution of cyanide of mercury injected by a Pravaz syringe at the corneal periphery. Care should be exercised in passing the point of the needle not to injure the iris or capsule, or allow an escape of aqueous fluid. Good results, he says, are more rapid and marked than by the sub-conjunctival method and the pain incident not so severe. In the simple ulcers or abscesses sub-conjunctival injection suffices. This method should not exclude other means of disinfection.—*Jour. Eye, Ear and Throat Diseases*.

Surgical and Gynecological Notes.—Charles A. L. Reed (*Internat. Jour. of Surg.* Nov. '99).—Myomectomy should be limited to young women with whom reproduction is an important factor, and in whose uteri there are no apparent remaining foci of fibroid degeneration. It should not be practiced in cases of multinodular myomata, nor in women beyond the menopause, nor in cases presenting hopeless disease of the uterine appendages.

I have seen appendicitis kill within fifteen hours after the initial symptoms. I have seen apparently convalescent cases turn bad and die within a day. I have evacuated large quantities of pus from cases that presented no symptoms of its presence. It were better, therefore, to save practically all cases by early, although sometimes unnecessary, operation than to lose twenty-five or more out of a hundred by waiting for "positive indications for interference."

Over ninety per cent. of the deaths from strangulated hernia occur among truss wearers. All injection treatment of hernia is unsurgical and unsafe. I have seen it develop fatal complications. Every uncomplicated case of hernia is safely curable by refined surgical means. It is the duty of practitioners to educate the ruptured to a proper appreciation of these facts.

The removal of hopelessly diseased uterine appendages does not unsex a woman, although the conditions preceding the operation may have destroyed her fecundity. It were foolish to say that all of sexuality consists in the power of reproduction.

Ichthyol in the Treatment of Chronic Bronchitis.—Dr. Le Tanneur (*Bulletin Medical*, January 24th; *Independance Medicale*, March 8th) reports having cured cases of many years' standing with ichthyol given internally in daily amounts of not less than half a drachm. He thinks it should be administered in such a form as to reach the intestine without having been freed in the stomach—namely, in gluten capsules.

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Vol. 44, No. 11.

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A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, DECEMBER 5, 1899.

No. 11

Original Communications.

Gastrostomy for Traumatic Stricture of the Esophagus—Report of Case.*

By GEORGE BEN JOHNSTON, M. D., Richmond, Va.

Professor of Gynecology and Abdominal Surgery, Medical College of Virginia; Fellow of the American Surgical Association, Etc.

PERHAPS no more pitiable spectacle comes under the eye of the surgeon than an otherwise healthy person slowly perishing from starvation due to traumatic stricture of the esophagus. One has only to glance at the first of the accompanying cuts [Fig 1] to verify this statement.

The youth, Robert Starling, whom I exhibit to you was referred to me by Dr. E. C. Moore, of Wilson, N. C., July 23, 1899. He resides at Kenly, N. C. Dr. Moore's letter stated it was a case of esophageal stricture which had become impermeable. The following brief history was elicited at the Old Dominion Hospital, into which he was admitted July 23, 1899:

He knows nothing of father or mother, who died when he was young. Health had always been good with exception of the present trouble and a few chills. When about three years old he swallowed concentrated lye. Remembers nothing about suffering at that time, but ever since he can remember he has had to press on esophagus to complete the act of swallowing. He could eat anything at first, but took twice as long as other people. One week before coming to the hospital his throat appeared to close up so he could not swallow except with great difficulty. Continued to get worse until July 20th, when he could take only milk, and that in very small quantities.

On July 24th I examined him in the hospital. It is impossible to describe his wretched appearance, his wasted form, his distressed countenance.

Esophageal bougies of various sizes were employed in succession, descending in calibre until the passage of a filiform urethral bougie was undertaken. In spite of a most careful and painstaking effort, we found that as Dr. Moore wrote me, 'nothing would pass.' Swallowing had become almost impos-

*Reported at the Tenth Annual Meeting of the Medical Society of Virginia, Richmond, October 24-26, 1899.

sible. A mouthful of fluid could be trickled through the stricture by stroking the neck at this point. It required twelve hours for him to drink a single glassful of milk. Efforts to pass a bougie were repeated on the



Fig. 1.—Dr. Johnston's case of Gastrostomy, on admission to hospital.

twenty-sixth and twenty-eighth of July with no better success than the first. To save the boy from a torturing death by starvation, it was determined to do a gastrostomy on him.

I selected the method of Ssabanajew-Frank, which seemed most suitable in this case. In Dennis' System of Surgery, pages 275-276, Richardson, of Boston, there describes the operation.

"The Ssabanajew-Frank method was so called because it was done in 1890 by Ssabanajew of Odessa and by Frank in Vienna in 1892. By this method two incisions are made. The first is along the left costal border. The stomach is drawn out of this incision a sufficient distance and fastened there [Fig. 2]. A second incision is made through the skin an inch or two

to the left. The tip of the gastric fold is brought under the skin and fastened into this second incision [Fig. 3]. The fistula is made at this point. Mean-

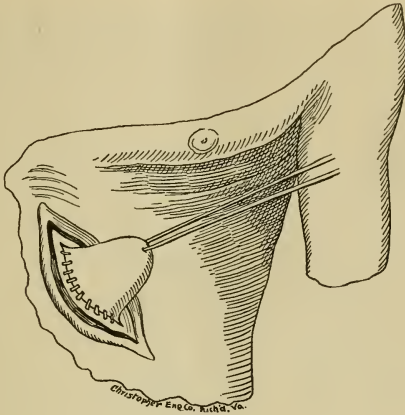


Fig. 2.—Ssabanajew-Frank method of Gastronomy, first stage. (After Richardson, Dennis' System of Surgery.)

while the first incision is closed. The inventors of this operation have reported each four cases, Myer of New York three. This method is inapplicable in cases of contracted stomach. Indeed, in cases of prolonged

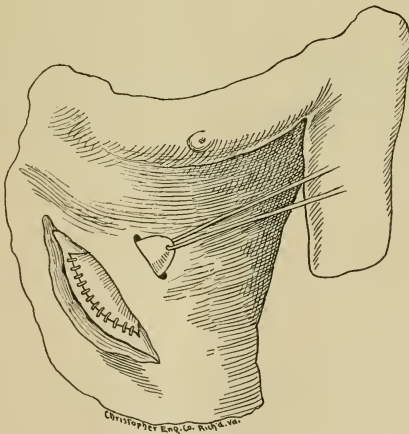


Fig. 3.—Ssabanajew-Frank method of Gastronomy, second stage. (After Richardson, Dennis' System of Surgery.)

starvation the stomach will not infrequently be found so contracted that it is brought with difficulty to almost any ventral incision."

The operation was done under chloroform anesthesia and occupied twenty minutes. The stomach was found normal in size. Dr. Moore was present at the operation. Tube feeding was begun a few hours after operation. At first he was given only peptonized milk. Later, his diet was

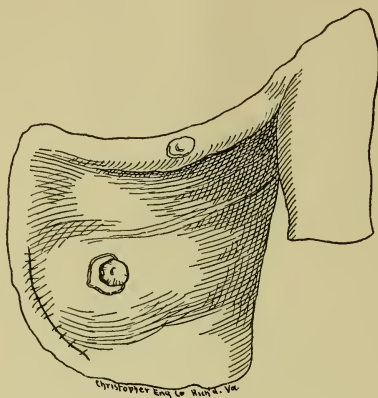


Fig. 4.—Ssabanajew-Frank method of Gastronomy, operation completed. (After Richardson, Dennis' System of Surgery.)

enlarged to broth of various kinds and soft-boiled eggs. As far as practicable all his food was predigested, and he was encouraged to masticate chewing gum and swallow the saliva.

At the end of ten days dilatation was again attempted by my colleague, Dr. John P. Davidson. This has been carried on with considerable success until now a No. 12 bougie will be admitted through the stricture. He swallows with considerable ease, takes promiscuous food and enjoys a ravenous appetite.

His progress after operation was entirely satisfactory, except for the unfortunate infection of the superficial portion of the larger wound which, on this account, had to heal by granulation, and thus marred the cosmetic effort of the procedure.

It will be observed that on the day of operation he weighed only eighty-two (82) pounds, and his appearance was most deplorable. To-day, eighty-six days after, his weight is one hundred and twenty-five (125) pounds, or a gain of forty-three pounds, or at the rate of one-half pound per day. [Fig. 5.]

The case is worthy of report because of the striking result obtained and because it may serve to prove that such strictures can be more efficiently

treated by dilatation when the esophagus is at rest and not subjected to the trials and irritation of difficult swallowing. Besides, the treatment goes on



Fig. 5.—Dr. Johnston's case of Gastrostomy, at present time.

under improving health when successful tube feeding has been arranged for.

[The illustrations of this paper were kindly loaned by *The Medical Register*, Richmond, Va.]

407 East Grace Street.

Dr. H. A. Hare is of the opinion that the transfusion of blood in poisoning by illuminating gas is not usually feasible. He could not understand why the use of normal saline solution used in the same manner would not bring about the same results as that of blood, by diluting the poison in the bloodvessels. In some experiments made several years ago by Dr. Edward Martin and himself, they found that the inhalation of oxygen in concentrated form also proved beneficial in such cases.

A Note on the Reasonable Control of Tuberculosis.*

By CARROLL E. EDSON, A. M., M. D., Denver, Colo.

AT the present time no subject in public medicine is attracting more attention than the attempt to control tuberculosis. As a result of the firm establishment of a definite causative agent, and the consequent recognition of the infectiousness of the disease, the hope has naturally risen in the medical profession that we may control and perhaps wipe out the disease. The first result of this activity has been to call the public mind to the infectiousness and danger of the disease.

Any discussion of the causative factors, of the infectiousness, and the desirability of checking the spread of a disease so serious in its menace to life and usefulness is unnecessary before this meeting. In watching the trend of professional opinions expressed upon the subject, and the subsequent but not always logical sequence of public action, one or two points have especially engaged my attention, and I venture to bring them to your mind, not as new knowledge, but rather for the purpose of eliciting an expression of opinion which may be of weight in the present time of suggested legislation.

The present crusade has been preached, as are all such reforms, by the more radical thinkers upon the subject. Their zeal is most laudable and unselfish, but in their enthusiasm over the far reach of vision as to the possibilities resulting from the discovery of a specific cause of the disease there has not always been sufficient attention paid to the necessary accompanying circumstances of vital resistance—"soil"—digestive and nervous capability to overcome the long latency of the disease after implantation before its fructification to death.

Do not misunderstand me. Nothing can be more unfortunate than oversight or disregard of the specific necessity of the tubercle bacillus for the production of tuberculosis or the truth that with its eradication will come cessation of the scourge. But in the practical control of the health of the community these concomitant factors are not negligible and may often be more within our powers of regulation.

The recent action of the State Board of Health of California is a practical expression of what has long been preached by the more enthusiastic advocates of total extinction. As you are probably aware, the board passed a resolution offered by Dr. Crowley of Oakland, "That it take into consideration the propriety of quarantining against human beings and domestic animals having tuberculosis from entering the State."

Much discussion has taken place and a second meeting on October 11th, was held to consider the resolution. There is a strong support in the board and among the press of the advanced views.

Such statements and actions are of especial importance to a community

*Read before the Denver and Arapahoe County Medical Society, October 24, 1899.

like our own, to which so many tuberculous persons resort in the hope of cure and to which till now they have been urged to come.

The chief dread of most persons of communities at the present day is of being behind the times, less ultra scientific and advanced than our neighbors, and any definite legislation by one State or city is likely to be taken up and at least equalled by others, such is our present enthusiasm for over legislation. For this reason it is well for us to consider carefully certain practical facts in what I venture to call the reasonable control of tuberculosis, and certain corresponding fallacies in our present attitude before we are met by the hurry of imminent official action.

The infectiousness of tuberculosis needs no argument, but in much of the popular writing by physicians—and too often in supposedly scientific papers—the attention is directed from the infectious agent—to its, for our purpose, primary source, with the result that the disease is pronounced not distinctly infectious but decidedly contagious, and this without regard to the great practical difference between an absolute unavoidable contagion and one which is truly possible but contingent only, and avoidable. In the first class we may place such diseases as small-pox. Tuberculosis is distinctly in the latter class, its transmission being contingent and avoidable. Now the uneducated public does not distinguish between the two, and when our own profession, in its over enthusiasm to promulgate a proper understanding of the dangers of the disease, states that all persons suffering from tuberculosis are direct menaces to the public, it fails to discriminate in just this line of applied truth. The more radical and inclusive the statements the more readily are they accepted by an untrained public and acted upon.

Let me cite one instance. I quote from a paper upon this subject by Dr. V. Y. Bowditch, of Boston.

A young, sensitive girl, who has undoubted symptoms of tubercular disease, enlarged glands, cough, slight expectoration, containing bacilli, after a prolonged stay at Sharon, was enabled to return to her home and take up some light occupation. Soon after the mother came to me in distress, with the following history: She had found her daughter sitting at a table alone, very pale, with a letter upon the floor at her side. Upon asking her what was troubling her, she only said: "Mamma, I am a leper," and handed her the letter from a member of the family, who had formerly been very kind to her, and to whom the girl had written that she "was so well now that she could soon go to see her." The mother showed me the letter and I read: "On no account whatever must you ever enter my house again; you are a source of danger to everybody." I can let you imagine the effect of such brutal words to a young, delicate girl. A subsequent letter, in answer to the mother's indignant reply, said:

"The highest authorities tell us this is a very infectious disease, and I must think of my child."

Considering for a moment, only the intra professional discussion of the matter, contagion is not judiciously considered.

Taking only pulmonary tuberculosis as an example, until within a few years Cornet's experiments and conclusions have been accepted. It was the dust of dried sputum, carelessly expectorated, from which all infection came.

In 1897-8 were published Fluegge's experiments of collecting the invisible particles of moisture during cough and finding by culture methods the presence of tubercle bacilli. There is at present a far from small number of enthusiasts who find bacilli not only in the moisture of cough from patients with advanced laryngeal or cavity states, but even in the quiet exhalations of the very earliest stages.

Pausing only to comment that there is at least some difference between such cough caught upon sensitive and especially adapted nutrient media and the transmission of the droplets to the respiratory passages of a person sitting apart, and presumably having some vital capacity and reactive resistive tissues, it is to be noted that to some minds this new theory of the mode of transmission has almost wholly superseded Cornet's. Frankel has even gone so far as to seriously argue in a paper in the *Berliner Klinische Wochenschrift* that in all cases so soon as a diagnosis is made of tuberculosis the patient should always, when in company or on the street, wear a close fitting wire mask over the nose and mouth, with a layer of antiseptic gauze to catch the emigrating germs. Statements from a man like Frankel carry weight, but are not unthinkingly to be accepted.

In view of these shifting theories, and recognizing that statements absolutely true of scientific test and animal experimentation may not have the same force when applied to the very different conditions of human life and daily intercourse, it behooves us to be, if not less radical, at least more discriminating in our public utterances. To create public panic by enforcing such measures as muzzling, will drive cases from the sunlight of early recovery to the dark rooms of concealment. To publish statements for the laity dealing only with the infectiousness and transmissibility of the disease and wrongly teach this to be contagiousness, and say nothing about general hygiene, domiciliary and personal, nutrition and outdoor life, will accomplish less than we need of good. Statements made about contagion and remote infection without regard to the stages of the disease, the social habits and surroundings of the patient, fail because they are not true.

Into the question of protection of the individual from self reinfection and the directions necessary to protect his immediate surroundings, I need not enter before this audience. The control of the general spread of the disease in communities now so actively urged, in reality becomes that of individual precautions, but as regards the public ensurance of such precautions two suggestions are now prominently considered. I wish to ask your attention very briefly to them as I have to the previous point.

I. Registration and the required reporting of all cases for public supervision.

The mere registration of cases is of no avail except for the purpose of further supervision. Such supervision, if properly suggested and discrimi-

natingly carried out is of the greatest value, especially in cases of tenements and lodging houses, but is needed quite as much in the way of general sanitary oversight at all times. To place all persons having a tubercular invasion, whether slight or advanced, be the person cleanly or careless, under the eye of public boards of health, (and no law can properly be made to discriminate against the one or the other), is at present hardly a wise proceeding, and will not lead to the enthusiastic attempt to make, and acknowledge when made, the earliest possible diagnosis.

II. The quarantine of tubercular cases, individually or by communities, is proposed, but it is not a new scheme. Italy tried it in the sixteenth century, and the victim of pulmonary consumption became as a leper in the land. One has only to read of those days and shudder at the vision of renewing such inhumanity.

If it should become, as has been suggested, the law that every one afflicted with tuberculosis should be required to remove to a sanitarium or specified region so soon as the diagnosis is made, how soon would that diagnosis be reached? Put it to yourself if the patient were parent, sister or wife.

But the question of danger to our immune community of such continued immigration of tubercular patients, is the issue with which this commentary began, and with it I will close.

It is certainly well to take such precautions as are possible to prevent invasion. It is said that the number of cases contracted here are increasing. So is the population, and with increase of density comes diminished light and air space, crowded factories and the stress of competition. There are more underfed, overworked persons, factors not to be left out of the summing. Take the careful study of reported tuberculosis over the world and the rate of mortality will show a close relation to crowding, overwork, hunger, insufficient clothing, and to the duration of such conditions. Tearing down a tenement to make a park will do more good than quarantine of the residents. The real fallacy, however, of such action as contemplated by the mover of the California resolution, is that in its unavoidable massing of incipient and advanced cases it will defeat the real object of stamping out the disease. We all agree that advanced and hopeless cases will not be benefited and should not be sent away from the contentment of home. This is a much needed lesson to be taught, but a more important one still, is that of early recognition. Our whole fight is to make the profession at large realize the importance of early diagnosis and the necessity of then enforcing restorative methods of life.

When the cavity stage of diagnosis gave way to sputum analysis much was gained, but to-day a large number should be recognized in an earlier incipency than that of breaking down. The closed stage, as it is so well called by Otis, is that in which climate as a nutritive stimulant can accomplish most and should be urged. It is that very stage in which the patient in the vast majority of cases is of no danger to the community. How can a

law quarantining against tuberculosis differentiate? At what stage should the law exclude? Is the position logical to urge the recognition of the disease before it becomes dangerous, and then cry out, *Avant!*

Much more is to be gained by a calm, unterrifying statement of how the disease is infective and transmissible and how so far only it is contagious, by an united effort to impress not the people with fear, but the profession with the beginning of wisdom, and by the arrest of all the incipient and latent cases we can find, rather than the branding and incarceration of those who have already become hopelessly ill.

The Alexander Operation in Retro-deviations of the Uterus.*

By HUGH M. TAYLOR, M. D., Richmond, Va.

Professor Practical Surgery, University College of Medicine, Richmond, Va.; Surgeon to Virginia Hospital, etc.

WHILE we admit that indiscriminate operating is responsible for the sacrifice of many healthy pelvic organs, it is equally true that delay and non-intervention is responsible, in many instances, for gross structural changes, destroyed function and hopeless invalidism. Masterly inactivity in pelvic surgery, as well as in obstetrical practice, has filled many graves. Masterly activity in the treatment of posterior displacements of the uterus as a prevention and curative measure is as potent for good as was the pre-aseptic uterine tinkering for evil. The dirty sound, uterine applicator, bivalvespeculum, etc., have irreparably damaged more tubes and ovaries than have been sacrificed by the pelvic surgeon, even when he was most thoroughly infected by the *furor for operations* of the immediate past.

Intra-peritoneal surgery finds its highest end in operations to prevent the consequences of intra-peritoneal lesions and infections. Preventive surgery is ideal, in that it prevents the consequences of morbid lesions, limits the extent of surgical intervention called for, lessens suffering, attacks the focus of disease while the system is strong, and secures an early and short convalescence, and saves life.

Dr. Chas. A. L. Reed, in a recent paper in the *Association Journal*, writes: "The so-called mechanic doctrine of uterine pathology taught with transient success by Hewitt, in England, was in a measure anticipated by Hodge, of Philadelphia, who devised (1830) a pessary for the correction of retro-displacement. It is to be said for the doctrine of Hodge that it was founded in rational pathology, and for his device that it was the least objectionable of any that has been given by the profession for this purpose. It would doubtless stand to-day as the chief expedient for the correction of these displacements if it were not that its use has been supplanted in the hands of intelligent gynecologists by the vastly more radical and more satisfactory surgical means. Even yet, in the absence of proper operative facilities,

* Read before Richmond Academy of Medicine and Surgery, November 14, 1899.

it is probably the means of bringing more relief to women of this unfortunate class than any other instrument in the hands of the general practitioner."

To say that the Hodge pessary is the "least objectionable" is, in our opinion, but a modest condemnation; and to say, in "the absence of proper operating facilities, it is a useful instrument in the hands of the general practitioner," seems to us questionable, judging from our own experience. It requires more technical skill to adopt a pessary which will accomplish the end designed, than to do any one of the several operations in vogue for correcting the retro-deviation; and moreover, if the general practitioner, into whose hand such cases commonly at first fall, has not the "proper operative facilities" for their treatment, they can always without risk be sent to the specialist.

We have heard good men claim that in many instances the retro-deviation is not a factor in inducing poor health; that this is the exception seems evinced by the strenuous efforts made at present and in the past to ascertain the best means for its relief. It is undoubtedly true that the retro-deviation *per se* is not in all cases a health-destroying condition, and exceptionally we meet with cases which do not seem to call for interference. If, however, we appreciate fully its possible sequence, and grant that the retro-deviation is an active factor in inducing the gross morbid intra-pelvic lesions with which it is credited, we must be convinced of the urgent need for the prompt adoption of some treatment which will correct the displacement, and what is of more importance, will also prevent its consequences.

What are the sequences to be apprehended? As we have said, not the displaced uterus *per se*, but more particularly the morbid changes in the tubes and ovaries brought about by the uterine displacement. The uterus, when under the sacral prominence, carries with it to a greater or less extent the tubes and ovaries, and it is easy to appreciate the occurrence and harm incident to compression of the tubes and ovaries between the enlarged and displaced uterus in front of the rectum and pelvic wall behind. Coughing, sneezing, walking, in fact, any movement conveyed to the pelvic organs, increases this pressure and traumatizes the organs compressed. Relief is also clearly indicated, because when the tubes and ovaries are prolapsed, hyperæmia, hyperplasia, pain and inflammation ensue, and by such changes we have laid the foundation for structural degenerations as well as perturbation of function.

A retro-displaced uterus is imperfectly drained. Vascular stasis and its sequence, enlargement and increased weight ensues, as well as intra-uterine puddling of mucus, etc., endometritis, infection of the uterine mucosa, extension of this infection to the mucosa, of the tubes and subsequent morbid changes in the tubes and ovaries, as a whole, are further sequences. I try to explain to such patients that they should have the displacement corrected, not only because of the immediate relief experienced, but also because postponement of treatment so often leads to irreparable damage to the tubes and ovaries.

An early treatment is the key to success, and has for its mission (a), to prevent trauma of the displaced tubes and ovaries; (b), to restore an obstructed circulation in tubes, ovaries and uterus; (c), to restore an adequate drainage of the uterine canal. In bad retro-deviation the tubes and not the utero-vaginal tract becomes the sewer and the pelvic peritoneum a cess pool. This condition notably gives a select invironment to woman's greatest enemies, the gonococcus, streptococcus, and staphylococcus. An obstructed utero-vaginal drainage is inconsistent with a healthy condition of the uterus, and decomposition of the retained mucus is an inevitable sequence of the retro-deviated uterus.

In this connection, the query is naturally suggested: Is the enlarged uterus, endometritis, salpingitis, and ovaritis due to displacement; or is the displacement a consequence of pre-existing inflammatory changes? We agree with those who regard the displacement as the primary condition, and the secondary changes are, we think, due in a majority of instances to trauma, circulatory defects and imperfect drainage. Many factors may act as exciting causes of retro-deviation, but we understand the predisposing cause or causes about as poorly as we do those inducing nephroptosis, gastroptosis, enteroptosis, etc.

Operative Treatment Versus Vaginal Suport, Rest, etc.—It is not our wish, in the least, to discredit the reports of those who claim to cure such cases by pessaries, by prolonged rest in the recumbent position, by the knee chest posture, by frequently replacing the uterus, and by improving its nutrition and circulation. Such plans of treatment, in our experience, must be continued for a long time. The sum total of pain and inconvenience, and even expense, is much greater than that incident to an operation, and a cure certainly cannot as confidently be promised.

Operative Intervention.—Which one of the several operations in vogue accomplishes the end with the least immediate and remote danger to the patient? Shall we do ventro-fixation (*suspensio uteri*)—shorten the round ligaments within the abdomen, or by a vaginal section, or do an Alexander operation? Should a tyro in surgery hear the surgical treatment of retro-deviations discussed by some of our specialists, he would have a hard time to decide which is the best operation. For some years we did ventro-fixation, but always felt, in spite of its endorsement by many good men, that it was an unsurgical procedure, in that nature never intended the fundus of the uterus to be fixed, even by short bands, in any such position, and in our limited experience, the benefits incident to ventro-fixation have been far from satisfactory. The history of ventro-fixation is that common to every surgical innovation. It counts among good men its warmest advocates, as well as bitter opponents. We even find one set busily anchoring the uterus, while the other unhesitatingly re-opens the abdomen to sever the supposed beneficent anchors, claiming that the pain incident to traction on the suspending bands warrants the operation to sever them.

Our unsatisfactory experience with *suspensio uteri* prompted us in a few

cases to shorten intra-peritoneal the round ligaments. Our experience with this procedure has been too limited to warrant us in either advocating or discouraging its adoption. Observing, however, in doing the Alexander operation, how often the ligament in the inguinal canal is practically no ligament—only a few bands of tissue until the internal abdominal ring is approached—we have felt much safer after transplanting the strong intra-peritoneal portion of the ligament into the inguinal canal. Whether this strong transplanted portion of ligament undergoes atrophy or not we have had no means of ascertaining. Nor do we know if changes in the inguinal portion of the round ligament antedates the retro-deviation. We are inclined to the belief that the retro-deviation stretches the round ligament and induces its thinning and atrophy. It would also be interesting to know why the intra-peritoneal portion of the round ligament does not atrophy as does the inguinal portion.

Advantages and Disadvantages of the Alexander Operation.—Some good men, who oppose the Alexander operation, claim that it is as unsurgical to fasten the uterus immovably in front by newly formed ligaments, or by shortening the round ligaments, as it is to leave it fixed by adhesions posteriorly. As a matter of fact, even if at first the round ligaments are shortened sufficiently to bring the uterus snug up in front, it does not remain immovably fixed. Some stretching of the shortened round ligaments occurs, and uniformly we have found within a few months the uterus sufficiently movable to accommodate the distended bladder.

Post-Operative Hernia.—Another objection to the Alexander operation, which is not infrequently urged, is that it favors post-operative hernia. A deservedly distinguished clinician of New York, whose intra-peritoneal work through the vagina stamps him as a master, upon investigation, found twenty-five cases of hernia in the records of the Hospital for Ruptured and Crippled, which followed the Alexander operation. In what length of time this number of cases occurred, we were not informed. Nor do we know the technique employed in doing the Alexander operation in these cases. Obviously, if the cases date back some years, it is fair to assume that the improved technique of to-day offers fewer chances of hernia—just as we do not compare the results of the operation for the radical cure of hernia now in vogue with those of even a few years ago. Recurrences were then frequent; at the present time they are very infrequent. We have heard another distinguished clinician of New York quoted as saying, if you want a post-operative hernia, do an Alexander operation. This same gentleman counts his successful Bassini operation by the hundreds. Not long since, it was our privilege to witness an Alexander operation by a New York clinician, who emphatically endorses its advantages. Doctor, we asked, do you have many hernias to follow this operation? Did you ever see one? he laconically rejoined. I was glad to be able to tell him I had not seen it occur in a single instance. Wait, he said, and I will show you how absolutely to prevent such an occurrence; and I was much interested in watching him use the

round ligament with which to sew up the incised inguinal tissues. So many of the ablest clinicians in this and other countries count their Alexander operations by the hundreds, and these men are best satisfied by the immediate and permanent benefits from this operation, and with this experience our own is, without an exception, in full accord.

We have never been able to understand why an Alexander operation should predispose to hernia, when a Bassini operation, which is almost identical in its technique, will, in more than 98 per cent. of cases, permanently cure a hernia. Moreover, in a radical operation for hernia, we have a sac to exercise, a mouth to close, a distended inguinal canal to obliterate, and possibly there has been atrophy of tissue, which should fill the canal, and stretching and thinning of its coverings, while in the Alexander operation we have only to replace structures recently incised. Another objection urged against the Alexander operation is that the round ligaments, with the uterus in its normal movable position, are lax, not taut, and do not appear to hold the uterus forward. This is equally true of the other peritoneal folds, whose functions are obviously suspensory ligaments of the uterus. Their mission is only to keep the uterus within certain limits, and this must be so to accommodate distension of rectum, bladder, etc.

We appreciate the fact that the greatest drawback to the Alexander operation is our inability, in many instances, to ascertain, except by opening the abdomen, the exact condition of the tubes, ovaries and uterus as to adhesions and degenerative changes.

In a series of 25 Alexander operations performed within the last two years, we have been misled in two instances. In one, the uterus was adherent to the rectum, and a long meso-rectum and a sacculated rectum permitted the uterus to be lifted up to such an extent that we did not recognize the posterior adhesion. A subsequent celiotomy was necessary to liberate the uterus. In a second case, in which relief incident to the Alexander operation was not satisfactory, a celiotomy disclosed an adherent cystoma of one ovary. This experience prompts us to agree with those who think it good surgery, in all instances, to open the peritoneal cavity at the internal abdominal rings, and thereby ascertain, beyond all question, the exact condition of the pelvic organs. Time and again in stripping back the peritoneal investment of the round ligament, we have torn into the cavity, and in no instance have we had cause to regret it. In three cases recently operated upon, we have purposely stretched the internal abdominal rings for diagnostic purposes. In one instance, we removed a cystoma from the broad ligament, in another a small caseous mass like a tubercular deposit, and in another case we removed one tube and ovary, the subject of irreparable structural change. Of course the internal abdominal ring need not be enlarged to admit a finger to discover the condition of the pelvic organs. With the uterus held up by drawing on the ligaments, we can explore the pelvis with remarkable facility, with more ease, we think, than through a median incision higher up. The disinclination to enlarge the inguinal rings more than is absolutely

necessary probably renders the task of delivering the ovary, etc., more difficult than is usually the case through a longer incision above, but there is no question in my mind that a limited incision of the internal ring will enable us to do efficient intra-pelvic work.

Uniformly we have opened up the full length of the inguinal canal. While we do not object to a long incision, we think an enlarged experience simplifies the operation with all who practice it. Many, we think, who do this operation in accordance with the technique of Edebohl and others, perhaps, like ourselves, wonder at the simplicity of the operation, as performed by Kellogg. Our own experience is in full accord with that common to many of far greater experience, in that the operation is easy of execution, is attended by a mortality which is nil, and remedies, in a most satisfactory manner, morbid conditions existing, and prevents those reasonably prospective.

SELECTED PAPERS.

The Blood in Diseases of the Cardio-Vascular System.*

By ALFRED STENGEL, M. D., Philadelphia, Pa.

I cannot undertake a thorough discussion of this subject from every point of view, but wish to allude only to some of the more important questions suggested by the study of the blood in cardio-vascular troubles. I may divide the subject into the study of the blood (1) in acute inflammatory lesions, such as endocarditis and acute arteritis; (2) in atheroma and arterial degenerations; (3) in the case of mechanical lesions, such as those of chronic valvular disease.

(1) *Endocarditis*.—In acute endocarditis, either of the benign or malignant type, it is customary to find a rapid reduction in the number of red corpuscles. In severe cases I have found counts of 3,000,000 and even 2,500,000. There is in this no condition peculiar to the lesion, but merely the evidence of general infection. When the acute lesion produces valvular deficiencies or obstruction, the condition of the blood may be complicated by the existence of such valvular disturbances. The leukocytes in acute endocarditis are habitually increased in number, this also being the result of the infectious character of the disease. In one of my cases the differential count of the leukocytes was of interest from the inordinate proportionate of polymorphous cells. In a count of 500 leukocytes 98.5 per cent. were of this description. Bacteriologic examination of the blood is of great importance in acute endocarditis, and may be the means of arriving at a diagnosis in doubtful cases. Various organisms have thus been obtained directly from the circulating blood and have afterward been found in the cardiac vegetations. Among others, the gonococcus is important in this connection. It

*Read before the Pathological Society of Philadelphia, Pa.

has been obtained from the blood in pure cultures in several instances of supposed gonorrhœal encarditis.

(2) *Atheromatous and Degenerative Conditions of the Vessels.*—The examination of the blood does not often present features of importance. It may be possible in certain instances to discover, from time to time, particles of detritus, fatty matter or other foreign bodies, which have been added to the blood from the lesions of the arteries. Such occurrences, however, are too rare to be of practical value. High grades of anæmia may be present in arterial disease, but I have frequently been struck by the fact that the character of the blood was but moderately altered from the normal, though the appearance of the patients suggested marked anæmia. This may possibly be explained by the changed conditions in the peripheral arterioles.

(3) *The Blood in Valvular Disease.*—A number of investigations have been published regarding the blood in valvular disease of the heart, and most investigators have reported the discovery of a tendency to inspissation with increased number of red corpuscles. This has not, however, been the uniform result, and every one who has made a study of the subject has noted that changes are prone to occur from time to time in any case. This is particularly true of diseases of the mitral valve. It has been shown by Ottolenghi that reduction of blood pressure causes a diminution in the number of red corpuscles of the circulating blood and a dilution of the blood, in consequence of the entrance into the circulation of greater or less quantities of lymph; and it has been found by Grawitz and others that in chronic cardiac diseases, attacks of failing compensation may be marked by such dilution of the blood and reduction in the number of corpuscles. This, however, is not constant. I have myself seen it in very marked degree, but, on the other hand have seen cases in which decided loss of compensation lead to a rapid increase in the number of corpuscles, in one instance amounting to 500,000 per cubic mm. Probably loss of compensation with reduction of blood pressure in itself might have this diluting effect, but the pathologic conditions in individual cases are so apt to be complicated by other elements of importance that uniform results are not to be expected.

In cases of chronic cardiac disease with continuous slight inadequacy of the circulation, an increased number of red corpuscles or polycythemia has been frequently detected and is of very great interest. It is doubtless in some way analogous to the increased number of corpuscles found in the blood of persons residing at high altitudes, and has been so considered by some. The degree of polycythemia may be very slight, but in some, notably in cases of congenital heart disease, the number of red corpuscles may run as high as 8,000,000 per cubic mm. A number of explanations have been offered for this condition. Among others, Grawitz is a recent defender of the theory that disturbance of the distribution of water in the system is an important causal element. He believes that in consequence of the continually reduced blood pressure and vascular dilation there is loss of liquid from the blood, especially through the lungs, and that inspissation of the blood occurs in this

way. I cannot now enter at length into a discussion of the experimental side of this question, but would only note certain objections to this theory. It has been shown that loss of water from the system by evaporation or through liquid discharges, affects the liquids of the body generally rather than the blood alone, and that with the knowledge we have regarding the interchange of liquids between the circulating blood and the tissues, we may reasonably conclude that notable changes in the blood would not ensue from such causes as Grawitz suggests. Further, the rapid fluctuations and the failure of polycythemia to occur in some cases in which all the conditions are present for such evaporation or loss of water as Grawitz maintains, show that the importance of this matter has, to say the least, been overstated. Finally, if the analogy with the conditions of the blood in persons at high altitudes or in experiments on animals subjected to rarefied air be allowed to be sufficiently close to warrant deductions, it might be pointed out that the rapid fluctuations in the number of corpuscles would militate against the belief that loss of water from the system is the important cause.

Another theory, particularly to explain the increased number of corpuscles at high altitudes, is suggested by Koeppel. According to him there is probably a rapid formation of corpuscles by division of existing red corpuscles as he was able to demonstrate experimentally after venesection. It is hardly likely, however, that this theory expresses the real causation of the change in the number of the corpuscles. The fluctuations are too rapid in both directions to warrant this view.

For my own part it has seemed to me that disturbances of the distribution of the corpuscles play a more important role in effecting alterations in the apparent constitution of the blood than investigators have generally been disposed to concede. It has long been known that the number of red corpuscles found in a cubic mm. of blood drawn from the skin is greater in dependent parts of the body than in elevated portions. Some years since I made some investigations of this matter, counting simultaneously the blood of the toe and of the finger held in air. The studies showed that the number of corpuscles in the blood of the toe was uniformly greater than that in the finger, the average excess being as much as eight to ten per cent. The explanation which seems reasonable in such instances is that the serum is more readily propelled against the force of gravity than the heavier corpuscles and that in consequence a greater number of the latter are retained in the circulation of dependent parts. Some support is furnished to this belief by the studies of J. K. Mitchell upon the influence of massage upon the constitution of the blood. His studies show that the number of the blood corpuscles progressively increases after general massage and I agree with him that this is probably due to the introduction into the circulation of considerable numbers of corpuscles which had previously rested in the tissues. Now in chronic cardiac diseases there are elements which would tend to cause a lagging of red cells in the peripheral arterioles or venules. Among these the failing cardiac power is most important. It is not improbable, however,

that evaporation such as Grawitz urges may contribute to the result by a general inspissation of the blood, though it does not seem likely that this element is of more than secondary importance. Another factor has suggested itself to me in the course of some studies of the change occurring in red corpuscles in consequence of congestion. I found that the blood drawn from a finger firmly ligatured until it became deeply cyanosed underwent marked changes. I need not now repeat in detail the changes observed, but desire to call attention to one fact alone, viz., that there was evident increase of the viscosity. This is but one stage or element in the process of progressive degeneration of corpuscles. It occurred to me that a similar change of less pronounced degree, however, might result from general congestion and inadequate oxygenation of the blood. Such a condition could conceivably exercise some influence in deterring the return circulation from the tissues, particularly when the *vis a tergo* is diminished. Another change observable in the corpuscles of congested parts is increase in size, at least it has seemed to me so in the few and rather imperfect tests I have made, by determining the number of corpuscles and the bulk as compared with the serum. A similar increase in size has been described as one of the conditions found in chronic cardiac disease. This also might be an added cause of peripheral corpuscular congestion. It seems to me then that the causes of polycythemia most likely operative in chronic cardiac disease are failing circulation, increased viscosity and possibly increased size of the red blood corpuscles.

This theory would, to a certain extent, be found compatible with the rapid fluctuations presented by some cases as well as the different behavior in aortic and mitral valvular disease. It has been my experience, as it has been that of others, that the blood in aortic valvular disease, especially aortic regurgitation, is more commonly anæmic than in mitral disease. In aortic regurgitation the dilation of the arterioles may possibly explain this. Given a certain degree of anæmia if the arterioles are widely distributed and the force of the heart rather great, peripheral stasis of the corpuscles would not be likely to occur; while in mitral cases with a similar degree of anæmia but without the arterial dilatation and with less adequate central power, the corpuscles might be arrested at the periphery and the blood might seemingly be of great richness though in reality no better constituted on the whole than in the other instances.

The studies of the solid matters of the blood and of the relation of serum to corpuscles so closely coincide with the results of the counting of the corpuscles, that I need not enter into them at the present time.

The leukocytes in chronic valvular disease are frequently increasing in number, but the degree of leukocytosis is rarely great and the conditions are by no means uniform. The chemical studies of the blood and particularly the studies of the alkalinity and gaseous constituents furnish an inviting field for investigations, but thus far there have been few practical results.

North Carolina Medical Journal.

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Editorial.

TYPHOID FEVER EPIDEMIC AT THE STATE NORMAL.

A distressing outbreak of typhoid fever has occurred at the State Normal and Industrial College, at Greensboro, with the result that the school is closed until the 2nd of January, 1900, or until the cause of the outbreak is discovered and the institution replaced in a good sanitary condition. We understand that the first cases of fever occurred early in October, and there have been upwards of one hundred cases to the date of closing the school, the number of inmates of the College being nearly five hundred. This shows a morbidity of over twenty per cent.; but the death rate, so far, has been small, only four cases having proved fatal to the time of this writing. Thirty or forty patients remain at the College under treatment, and while some of these are dangerously sick, it is hoped that the death rate will not be any larger than at present. While the outbreak occurred early in October it was the middle of November before the authorities seemed to realize the true condition of affairs—that they had an epidemic to deal with. Immediately, then, the College was closed and the unaffected students allowed to go to their homes and thus avoid further exposure to the contagion. It is probable that some of these will develop the disease later.

No more serious blow could have been dealt this noble institution which has come to be a pride to the people of the State on account of the excellent work being done by it. For the welfare of the institution it is necessary that the origin of this outbreak be ascertained and removed. This duty devolves upon the State Board of Health, and our great confidence in the zeal and ability of the Board makes us feel sure that no trouble or

expense will be spared to accomplish this. Where the blame shall rest, if any individual blame there be, cannot be determined until those having in charge the investigation of the matter make their report. There is one thing strongly emphasized by this unfortunate occurrence, the importance of annual thorough inspections of all institutions where large numbers of persons are domiciled. We do not mean the too usual perfunctory round-making with a polite superintendent, followed by a flattering report as to the excellent condition of the institution, and the great credit that is due the officials for their excellent management. These inspections should be rigid, matters of conscience and business; they should be made by men who are efficient in such work, and who will search every flaw that it is possible to detect, not for the discomfiture of the officials but for the welfare of the inmates; they should be paid, and paid liberally, for the services of a man capable of doing such important work well, are worth money to himself and to those whom he serves. Experience is a dear but an impressive teacher, and we trust that this occurrence which has been followed by such sad results will work much future good in the other institutions of the kind throughout the State. It is hard however that our lesson must be learned at the expense of a temporary suspension of the work of a great institution and the carrying of suffering and sorrow into so many homes.

Since the above was placed in type, Dr. Albert Anderson, of the State Board of Health, after careful examination of the water from two wells from which water was used for drinking purposes, has reported the presence of the typhoid bacillus in considerable numbers in the water. This renders it quite probable that the source of the disease was the drinking water.

Acad. J. (O.S.) 44-334-335, #11, 5 Dec 1899.

MEDICAL HISTORY OF SIR WALTER SCOTT.

In a recent number of the *New York Medical Journal*, Dr. Roberts Bartholow writes interestingly upon what he calls the "Medical History" of the great Scotch novelist. To medical lovers of Scott, Dr. Bartholow's article will prove worth the reading, not only as affecting one of the most popular authors in the English language, but also because it furnishes a picture of the medical practice of that day. It is perhaps not widely known, for example, as in the case of his contemporary Byron, that Scott was lame in the right leg, a result, as we think is clearly proven by the history which Scott has given of his case of infantile paralysis. It seems that his parents tried every means of cure, regular and irregular, for the relief of the trouble and probably because of a natural robustness of constitution rather than of any special treatment, though in some respects this latter seems to have been sensible, he made such a recovery that his lameness in after life was more of a disfigurement than a disability. In other respects Scott is said to have been physically a very handsome man.

To indulgence in the convivial habits of the hard-drinking age in which

he lived, although never intoxicated, and always a great worker, Dr. Bartholow ascribes the origin of that chain of maladies which finally resulted in a comparatively early death. After middle life Scott began to suffer from what he called attacks of "cramps in the stomach" which were exceedingly painful and lasted at times from 8 to 10 hours. As these attacks were all followed by jaundice and other characteristic symptoms, there can hardly be any doubt that they were the result of the passage of gall stones.

Scott himself gives a picture of the medical treatment in vogue then : "I have been seized with one or two successive crises of my malady, lasting in the utmost anguish from eight to ten hours. If I had not the strength of a team of horses, I could never have fought through it and through the heavy fire of medical artillery, scarcely less exhausting—for bleeding, blistering, calomel, and ipecacuanha have gone on without intermission—while during the agony of spasms, laudanum became necessary in the most liberal doses." Later on, when he suffered from a succession of seizures of an apoplectic character, the fourth of which proved fatal, he was "bled, cupped, and tasted nothing but pulse and water for some weeks." This atiphlogistic regimen which seems to have been effectual in the first instance was hardly calculated to prolong life in a patient already debilitated by previous attacks. At the post-mortem a considerable patch of softening was found in the left corpus striatum. What renders the medical history of Scott the more interesting is that the details of his sickness are put down in his own writings and that of his biographer in such a manner as to render it possible for the medical man of to-day to make a diagnosis with a fair degree of accuracy.

For Constipation.—R. C. Fisher (*Texas Medical News*, August) says that in the treatment of habitual constipation the good derived from cascara sagrada will depend upon the mode of administration ; if given as a cathartic and only when necessary to unload the bowel, it fails to accomplish the desired end ; but when given in small doses for its tonic effect upon the lower bowel, a much better result may be expected. As the bile is always found deficient in constipation, it becomes necessary to combine some cholagogue with the cascara ; the following preparation of corrosive sublimate, cascara sagrada, and strychnine is of value :

R	Corrosive sublimate.....	1½ grain
	Sulphate of strychnine	1 grain
	Distilled water.....	1 ounce
	Fluid extract of cascara sagrada.....	4 ounces
	Glycerin.....sufficient to make.....	8 ounces.

M. S. One teaspoonful, more or less, two or three times a day, to maintain one action from the bowels each day ; an initial purge should be given. The patient should be instructed to find the minimum amount necessary to produce one healthy stool each day and then continue this for some time. A certain time in each day must be selected for the evacuation of the bowels.
—*N. Y. Med. Jour.*

Deduction.—Coroner : "Do you wish to prefer a charge against the druggist who made a mistake in the prescription?"

O'Houlihan : "No, sorr. He ain't to blame. Oi troid to rade th' thing mesilf, an' Oi c'udn't make out a wurrd."

Book Reviews.

The Christmas Number of Scribner's Magazine contains several striking novelties in illustration. Harrison Morris's Ballad of "Three Kings" is illustrated by Walter A. Clark's pictures which are as rich in color as an old stained-glass window. A picture story by C. D. Gibson called "The Seven Ages of American Woman," is printed on a delicate tint background, after the manner of old engravings.

The six short stories are of great variety in sentiment and subject—love stories, character studies and eccentric comedies.

Dr. F. A. Cook, who recently returned with the "Belgica" expedition, writes entertainingly of the possibilities of future expeditions to Antarctic regions and Albert White Morse reviews Amenea's past achievements in Antarctic exploration, (Profusely illustrated from Dr. Cook's photographs.)

Augustine Berrell, the English Essayist and member of Parliament, contributes a review of John Wesley as a force in the development of British National life.

E. C. Peixotto, the clever young artist who is abroad for *Scribner's*, contributes the first of a series of drawing and text on picturesque French architecture.

The Cosmopolitan Magazine is the first to exploit the beauties and attractions that are to come at the Paris Exposition. It has secured a notable contribution for its November number from Vance Thompson, who is now in Paris, who has been over the ground especially for "*The Cosmopolitan*," and who is, undoubtedly, the most brilliant of the younger American writers. The article is copiously illustrated. Hon. Chas. A. Towne will contribute a second Paris Exposition article for the December *Cosmopolitan*.

The Physician's Visiting List. P. Blakiston's Son & Co., Philadelphia. This popular list for 1900 has made its appearance and is in-keeping with former editions. There is no more neat and convenient list published. It is in various styles for twenty-five or fifty patients a week, in one or two volumes, the monthly form in which the name has to be written only once a month, and the perpetual, which is good for any year. It contains the usual tables and spaces for memoranda.

Manual of Diseases of the Skin—with an analysis of twenty thousand consecutive cases, and a formulary. By L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital, etc., etc. Fourth edition, revised and enlarged. G. P. Putnam's Sons, New York, 1898.

Dr. Bulkley's work is all that the general practitioner needs, and the fact that four editions have been necessary in so short a time is evidence that it is popular. Diseases are briefly but clearly described, while more extended attention has been given to treatment. A useful and convenient formulary is provided in an appendix.

A Text-Book of Materia Medica, Therapeutics, and Pharmacology. By George F. Butler, Ph.G., M. D., Professor of Materia Medica and of Clinical Medicine in the College of Physicians and Surgeons, Chicago; Handsome octavo volume of 860 pages. Illustrated. Cloth, \$4.00 net. Sheep or Half Morocco. \$5.00 net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia.

The author is to be felicitated upon the fact that the present edition of his work is the third within the space of three years. The appreciation of the profession could not be shown in a more substantial way. The idea of

the writer has been to furnish a clear and concise text-book for the student, as well as a work adapted for permanent reference to the physician. This two-fold object has been accomplished in a highly satisfactory manner.

The author rightly speaks of the frequent want of knowledge among practitioners concerning pharmaceutical matters, the incompatible and synergistic action of drugs upon which their remedial powers so often depend. His conclusion that such information comprises a powerful addition to the resources of the medical man cannot be questioned.

Recognizing that the object in a classification of remedies is, "to facilitate the retention of a vast number of valuable yet isolated facts," he had arranged them in accordance with their therapeutical affinities. There can be no doubt that this classification will be found of great practical utility to the student and possessing fewer drawbacks than is generally the case in the usual divisions and subdivisions of medical agents; none of which in the present state of our knowledge give universal satisfaction.

A chapter on the "Untoward Effects of Drugs" will be found of especial interest. The exhaustive contribution of Prof. C. S. N. Hallberg, Ph. G., on "Weights and Measures," and on "Pharmaceutical Preparations" also adds permanent value to the work. On the whole it is a work of unusual value to the student or practitioner; there is, in our opinion, none better.

The Nervous System and its Constituent Neurones.—Designed for the Use of Practitioners of Medicine and Psychology. By Llewellyn F. Barker, M. B. Formerly Associate Professor of Anatomy in the Johns Hopkins University and Assistant Resident Pathologist to the Johns Hopkins Hospital. With two colored plates and six hundred and seventy-six illustrations in the text. New York. D. Appleton & Co. 1899.

The great advance made during the past few years in the study of the minute anatomy and physiology of the nervous system is sufficient justification, if one were needed, for another general work on this highly important subject.

Section I of this treatise is devoted to the study of the history of the development of the neurone concept. In this section it has not been the author's purpose to give a review of the evolution of the various doctrines held at different times regarding the structure and function of the central and peripheral nervous system, but in order to make clear the phenomenal advance as represented by the ideas which at present prevail, he speaks briefly of the unsatisfactory state of the views which immediately preceded them. Chapter iv, of this section, is a very interesting one, describing the method of vital straining of the nerve elements as introduced by Ehrlich.

Section II is a study of the external morphology of neurones. The author uses the term neurone in its widest sense, including not only the cell body and its protoplasmic processes, but also the axis-cylinder process with all its sub-divisions, collaterals, and terminal ramifications. The author in referring to the myelin sheath, points out that the discovery of the fact that within the brain and spinal cord the axones of neurones destined for different functions receive their myelin sheaths at different periods of developmental history, and its application as a means of analysis of nerve tracts from the basis of Flechsig's embryological methods.

Section III takes up the study of the internal morphology of neurones. It contains a very complete bibliographical review of all that has been done along this line of investigation, designed for those, who from want of time or other reasons might find the bibliographic studies burdensome.

Section IV is devoted to the histogenetic relations of the neurones, and

is exceedingly well written; the descriptions, here given by the author, are drawn largely from the writings and lectures of His.

In Section V the author passes on to the consideration of the neurone as the unit in physiological and pathological processes. The author classifies the considerations brought forward, as follows: (1) Those bearing upon the metabolism of the neurones, (2) those concerning the phenomena of irritability as manifested by the neurones, and (3) those referring to the interdependence of the trophic function and the manifestations of irritability.

In one chapter the author presents in a highly interesting way some of the methods which have been undertaken to investigate the effects of poisonous substances upon the neurones, and a comparison of these with the effects of traumatism.

Section VI is an exhaustive review of the work that has been done in the grouping and chaining together of neurones to form a complete nervous system.

This section should receive the most careful study to be appreciated. A special feature of the book is the splendid illustrations, the author believing that form relations are more easily grasped from the examination of good pictures and models than in any other way, and that one well chosen illustration with a satisfactory legend is often of greater value to the student than many pages of laborious and exact description.

Two handsome lithographic plates appear at the end of the volume, representing some of the neurone systems of the principal motor and sensory conducting paths in the nervous system, and some of the principal conducting paths in the central nervous system.

The author gives due credit to every one who has thrown any light on the subject. A carefully prepared index adds greatly to the usefulness of the work.

The work will be found of inestimable value, both to the specialist and general practitioner. The author's efforts are to be heartily commended, for he has presented to the field of neurology, a most thorough treatise on the minute anatomy and physiology of the nervous system.

The publishers deserve much credit for the excellent style in which the book is finished.

R. L. F.

The Girl Was Alarmed.—At a private exhibition of slight-of-hand, mind-reading, etc., a rosy-faced housemaid who had been in attendance upon the party became greatly interested, and when not otherwise engaged stood in the doorway and watched the tricks performed by the handsome conjurer.

At his request the girl brought in a very thick shawl, which was placed upon the table. One of the audience wrote upon a scrap of paper a number of three figures, which was placed upon the table under the shawl, face up.

The performer fixed his gaze on the shawl for an instant and said:

"The number is 999."

When the party who had placed the number under the shawl pronounced the statement correct, the girl at the doorway gave one terrified look at the wizard, and with a scream she ran down the hall, shouting as she ran:

"What's the good of me clothes? What's the good of me clothes?"—*Practical Medicine.*

Medical News and Items.

Dr. J. V. Hunter of Steel Creek, has moved to Waxhaw.

Small Pox continues to crop out in various parts of our State, the latest outbreak being near Pomona 3 miles West of Greensboro.

The Plague continues in Portugal, two or three deaths daily being reported in Oporto.

Announcement is made that the *Journal of Eye, Ear and Throat Diseases*, published by the medical staff of the Presbyterian Eye, Ear and Throat Charity Hospital, will hereafter appear as a bi-monthly instead of quarterly as heretofore.

Dr. John H. Gibbon, of Philadelphia, has been appointed assistant-surgeon in the National Guard of Pennsylvania, and has been assigned to the Sixth Regiment Infantry.

The New York Association for Improving the Condition of the Poor has issued its report for the year ending September 30. This shows that it has had over 8,000 applications for relief, and has aided 6,000 families with homes in obtaining food, fuel, clothing, rent and transportation. It not only needs money to carry on this work, but cast-off clothing for men, women and children.

The Improvements at the Presbyterian Eye, Ear and Throat Hospital, in Baltimore, have been completed. A two-story dispensary has been erected in the rear. The old dispensary has been turned into wards, which have been furnished by Mrs. Joseph Rieman, in memory of her late husband.

It is proposed to consolidate the medical societies of Baltimore as sections of the Medical and Chirurgical Faculty of Maryland. Another proposition is to unite the county medical societies under this parent society, each paying a small membership fee. Should these plans mature, they would give a very strong organically united profession in Maryland, and would vastly increase the influence and usefulness of the Maryland profession. There is a good prospect of this plan being realized as it is favored by leaders in the profession.

Fake School of Pharmacy. Through an advertisement in a New York newspaper under the title "Male Help Wanted" a fake school of pharmacy has been unearthed. Those who answered this advertisement were assured that by the payment of a moderate tuition fee and some work in the evenings, while pursuing other avocations during the day, it was possible for young men of ordinary intelligence and education to pass the examinations of the Board of Pharmacy, and become licensed pharmacists, thus commanding a salary of \$12 to \$15 a week. The enterprising head of this school, "Professor Novarine" does not appear among the list of graduates from the New York College of Pharmacy, though he claims to be a member of the Alumni Association of that institution. He does not state how he proposes to get around that provision of the law which requires at least four years of practical experience in a pharmacy.

A Label for Doctors.—The trustees of the American Medical Association have adopted an official button with which the members are requested to label themselves. It is of gold, with red, white and blue enamel. In the centre

is a lance-pointed cross, the ends of which point to the word MAMA, which is probably not a term of endearment, but is formed of the initial letters of "Member of the American Medical Association."—*Record*.

A Case of Anthrax.—A 'longshoreman died a few days ago in the Long Island College Hospital of anthrax. He had been engaged in unloading hides from a vessel, and it is supposed that he became infected in that way.

The Southern Surgical and Gynecological Association will hold its Twelfth Annual Meeting at New Orleans, La., Tuesday, Wednesday and Thursday, December 5, 6, and 7, 1899, under the presidency of Dr. Joseph Taber Johnson, of Washington, D. C. The secretary, Dr. William E. B. Davis, of Birmingham, Ala., is preparing an excellent program for the occasion, and the delightful weather prevailing at this season in New Orleans ought to and no doubt will ensure a large attendance.

The Seaboard Medical Association of Virginia and North Carolina has its Third Annual Meeting at Newport News, Va., on the second Thursday in January, 1900.

The Seaboard Medical Association is composed chiefly of practicing physicians in the Eastern part of the above named States, and is not intended in any way to detract from, or to conflict with the respective State societies, but "per contra" to co-operate in any way which may be of mutual benefit.

The general topography and climatic influences being the same, the diseases prevalent in both sections bear close relationship. Hence the papers and discussions are all the more interesting and beneficial to those of the profession who practice in the East. Special mention might be made of the discussion of papers on "Malarial Haemoglobinuria" brought out at the last meeting of the Association at Wilson, N. C., January, 1899, extracts of which were published in the leading journals.

It is expected that the next meeting will surpass all former ones, both in number of papers and discussions, as well as in point of attendance, which will be exceptionally large.

The Executive Committee extend to you a most cordial invitation, and hope that you will certainly attend, and add your name to the ever increasing roster of members—if not already there—and also prepare a paper for the occasion on any professional subject which you may select, sending title of paper either to the President, Dr. Lucien Lofton, 230 North Park Avenue, Norfolk, Va., or to the Secretary, Dr. Jno. C. Rodman, Washington, N. C., not later than December 20th, 1899.

The Committee of Arrangements will secure reduced railroad and hotel rates and provide comfortable accommodations.

JOHN C. RODMAN, M. D., Secretary.

Richmond's New Hospital. Among the many evidences of advance on the part of Richmond within recent years, none gives more substantial testimony to her growth than the announcement that she is now to have a hospital equal in equipment to any in the United States and in size the largest south of Baltimore, with the exception of Charity Hospital, New Orleans.

Some months ago Drs. George Ben Johnston and Ennion G. Williams conceived the idea of erecting a large private hospital in this city. In the discussion of their plans it suggested itself to both of these gentlemen that greater good could be accomplished by enlarging the scope of the enterprise beyond what was originally contemplated. Impressed with this conviction, conference was held with some of the leading capitalists and philanthropists

of this city and the plan laid before them. The idea was enthusiastically received and within a very short time ample subscriptions were secured to ensure the carrying out of the project. Dr. Lewis C. Boshier, who had also contemplated the erection of a private hospital, gave up his plans and merged his interest in the new enterprise.

The successful carrying out of the project being thus assured, the first step taken was the purchase of a site for the hospital. No more ideal location could have been found than the one finally secured—the lots at the southeast corner of Twelfth and Broad streets, now occupied by the Crump and Myers residences. Regarding the site, it is of historic interest to note that many years ago this locality was known as "Doctors' Commons" on account of the number of physicians having their offices in the vicinity.

The charter for the hospital was granted by the Hon. Beverly R. Wellford in the Circuit Court of Richmond, on October 15th. After its acceptance the following officers were elected: President, Mr. R. S. Boshier; Vice-President, Mr. John L. Williams; Secretary, Mr. E. Randolph Williams; Treasurer, Mr. Fred C. Nolting.

As before stated, this hospital will be the largest south of Baltimore, with one exception. There will be about one hundred and fifty beds, including private rooms, small wards for pay patients, and ample accommodations for the indigent sick from all parts of the State. To the lower floor, with entrance on Broad street, will be transferred the City Free Dispensary. There will be at least three operating rooms, including a magnificent amphitheater for clinics.

The attending staff of the hospital will consist of the Faculty of the Medical College of Virginia, an arrangement of mutual advantage to both institutions.

We congratulate our sister State and her capital City. The building of this great hospital is an evidence of her prosperity and enterprise and will result in untold good to suffering humanity.

Marriages.

Dr. Chas. S. Jordan, of Asheville, 1st asst. Surgeon 1st N. C. Vol., and Miss Harriett Baker of Brooklyn, N. Y., were married on November 8th.

Dr. Hy. F. Long, a rising young surgeon of Statesville and Miss Carrie Allison of the same town were married on November 23rd.

Deaths.

Dr. O. P. Gardner, the oldest physician in Shelby, N. C., died at his home on November 2nd. He had been in failing health for the last two or three years and had given up practice.

Dr. Edwin J. Gill died in Laurinburg, Monday, November 27th.

Effect of Bullet Wounds in South Africa.—The *New York Times* says: "Some of the wounds inflicted on the British soldiers are of an extraordinary nature. The Mauser bullet makes a clean perforation of bone and muscle. Soldiers shot through both cheek-bones have lost the sense of smell and taste, but are otherwise quite well. Most of the wounds are in the hands and arms."—*Record*.

Review of Medical and Surgical Progress.

The Advance in Our Knowledge of Typhoid Fever.—In a recent very interesting paper read before the New York Medical Association, Dr. Hermann M. Biggs briefly reviews the advance in our knowledge of typhoid fever. The first great step in the advance was made through the observations and writings of Shattuck, Gerhardt, Bartlett and Flint in this country, and Sir William Jenner in England, which defined the characteristic lesions of typhoid fever and made possible its differentiation from typhus. The second period extends from 1850 to 1880, when the discovery of the typhoid bacillus by Eberth was announced. The third period extends from 1880 to the present time. Until accurate bacteriological investigations had corrected and extended our knowledge, enteric fever seemed a better name for this disease than typhoid fever, as it indicated what seemed to be the essential anatomical lesion of the disease. The involvement of the solitary follicles and patches of Peyer in the ilium and the presence of ulceration in them were essential post-mortem for a diagnosis. Although many observers held the opinion that a typhoid infection might occur without the presence of ulceration, still the proof was wanting. Now, however, there is abundant evidence to show that while the primary localization of the typhoid infection in the lymphatic structures of the small intestine is the usual one, and is present in a very large proportion of all cases, yet the primary infection may be centered in other organs or tissues of the body, or it may take the form of a typhoid bacillus septicemia. It seems probable from our recent knowledge that generally, at some time in the course of typhoid fever the bacilli are present in the circulation in small number. That this is so in the majority of cases is shown by the presence of the bacilli in the rose spots of the typhoid eruption; in the urine during the latter course of the fever, *and sometimes for long periods after the beginning of convalescence*; and finally by the demonstrations of the organisms in the blood in many cases by proper methods of examination.

In regard to the restriction of the disease, a very serious and difficult question confronts the sanitarian. It has been considered sufficient that the discharges from the patient and his soiled linen be immediately and thoroughly disinfected during the continuance of the disease, but even this precaution has been but indifferently carried out by a large proportion of the profession. However, it now becomes evident, from our knowledge that the living organism persists in the urine, in some cases, for long periods after the establishment of convalescence, that the urine of every case of typhoid fever should be, not only systematically disinfected, but that it should be examined at intervals during convalescence, and the case should be kept under observation until it is permanently free from bacilli. That such measures can, at present, be carried into effect is manifestly impossible.

Re-vaccination.—Saint-Yves Menard (*Revue Mensuelle des Maladies de l'Enfance*, March, 1899), gives a table showing the importance of re-vaccination. There is a popular notion that the entire body is renewed every seven years in the young, but that this is not true of elderly people. According to Menard's table, re-vaccination in from six to ten years, 17.6 per cent. of positive results: at ten years, 15 to 18 per cent.; at twenty years, 50 per cent.; at twenty to forty years, 60 per cent.; and from forty to sixty, 74.2 per cent.; from sixty to eighty years, 82.9 per cent.;

and from eighty to one hundred years, 88.5 per cent. These figures show that vaccination immunity gradually disappear with advancing years; that at the end of the first decade nearly one-fifth have lost their acquired immunity, and that this proportion rapidly increases with advancing years. These statistics clearly show that the view that re-vaccination is unnecessary in the aged is incorrect.—*Medicine, Detroit, 1899, v. 685.*

Heart Disease From an Obstetrical Point of View.—(Dr. Wright, *Medical Quarterly*, 1899, Vol. 1, No. 2) asks the following question, "Should a woman with valvular cardiac disease be allowed to marry?" He thinks the answer should be yes, with certain exceptions. In naming the exceptional symptoms which should change the answer from yes to no, the author quotes from Hanfield Jones: "If there are any serious symptoms of cardiac disturbance present, or attacks of dyspnea, breathlessness, palpitation on exertion, or hemoptysis, marriage should not be sanctioned." I have for some years entertained the opinion that a young woman having valvular lesions of the heart, who can carry out her social and domestic duties without any serious symptoms of ill health, should not be prevented from marrying, although I freely admit that child-bearing is likely to aggravate the dangers connected with heart disease. The author reports a series of seven cases of serious heart lesions, complicating pregnancy and parturition, death resulting in only one case. It is quite possible that this patient might have been saved if she had been properly nursed in a comfortable home or hospital. With the worst possible surroundings and the poorest kind of nursing she lived six days after delivery. The author's views are summarized as follows:

1. A woman having a heart lesion which is compensated should not be prevented from marrying.
2. Abortion should not be induced on a woman with heart disease unless very serious symptoms are present.
3. Premature labor should seldom or never be induced on account of heart disease.
4. Mitral stenosis is the most serious heart lesion during pregnancy and labor—aortic stenosis comes next—then probably aortic incompetency. Mitral insufficiency is the least serious lesion.
5. Treatment during pregnancy.—Administer the following according to indications: Strychnine, digitalis (or strophanthus), cathartics, nitrite of amyl, nitro-glycerin, and regulate the diet.
6. Treatment during labor: Keep up the action of digitalis (or strophanthus) especially during the first stage. Give strychnine and stimulants if required, and chloroform. As soon as the first stage is completed deliver with the forceps.
7. Watch the patient carefully during the third stage (the most dangerous time) and for some days after.

R. L. F.

Myositis.—(Editorial, *University Medical Magazine*, October, 1899).—Inflammatory affections of the muscles have received, until recently, comparatively little attention. Without doubt many cases in which pain in the muscles is the chief symptom, and which are often regarded as examples of muscular rheumatism, would be more correctly classified under one of the forms of myositis. Inflammation of the muscles frequently occur as a sequel to certain infectious disease, especially typhoid fever, influenza and scarlet fever. The lesions in the muscles, excited by the specific fevers, are both degenerative and inflammatory. In pyemia, erysipelas, ulcerative endocar-

dites and gonorrhœa the myasitis may be purulent. Syphilitic myasitis may be manifested as a gumma of the muscle, or as a diffuse process characterized by an overgrowth of fibrous tissue between the muscle fibres, the latter ultimately undergoing degeneration and atrophy.

Apart from those forms of myasitis which are clearly secondary, there is an acute inflammatory affection of the muscles, which appears to be primary. This disease was first described in 1887, independently by Wagner, Hepp and Unvernicht. Since that time about thirty cases of the disease have been reported. The etiology of the affection is obscure; three hypotheses have been advanced, (1) that the disease is due to a specific vegetable parasite; (2) that it is due to an animal parasite; (3) that it is due to a toxin absorbed from the intestinal canal. Three cases reported by Kell, and a case reported by Senator give support to the toxin theory. Kell's cases developed soon after the eating of a fish that was apparently sick when caught, and in Senator's case the disease followed the ingestion of stale-crab-meat.

The disease does not appear to be contagious, and in none of the cases have micro-organisms been found in the blood or muscles.

It may begin gradually or abruptly with headache, malaise and moderate fever. Following these constitutional symptoms a painful swelling of the extremities develops, attended by stiffness of the muscles, tenderness on pressure, edema, and a variable rash, usually erythematous, but occasionally morbilliform, purpuric, or urticarial. Involvement of the intercostal muscles and diaphragm gives rise to dyspnea. Reflexes are not lost; apart from the pain there are no disturbances of sensation. The duration of the disease is from two weeks to two years. Recovery is often protracted.

Another affection described is that of "myasitis ossificans," of which about fifty examples have been recorded. It is characterized by the deposit of osseous material in the connective tissue of the muscles, in the tendons, aponeurosis, and ligaments.

The beginning of the disease is variable, sometimes being altogether chronic; at other times quite acute. The first indication is the appearance of a circumscribed swelling in the muscles, which may or not be painful. At first the tumor has a slightly boggy feeling, but it subsequently becomes firmer, and finally osseous.

Missim describes the condition as follows: The muscles of the back, particularly of the neck, are the most liable to attack. The long muscles of the back may form a single long mass; later, the deltoid, the teres and the pectoralis major may all be involved. As a result the head becomes fixed, possibly to one side; ankylosis of the shoulder-joint, with immobility of the scapulæ and vertebral column may follow. Even the muscles of the upper and fore-arm may be affected with ankylosis of the elbow; similarly the muscles of the lower limbs may be involved from above downwards, especially those on the posterior aspect, with ankylosis of the hips and knees. Lastly, the masseters and pterygoid may succumb, resulting in immobility of the jaw. The appearance of the patient is striking, as he is converted into an immovable block, and it is possible to raise him up as one would a wooden figure by the head. At the same time, the internal functions appear to be unaffected, and there is no alteration in intelligence. The facial muscles appear to escape. The duration extends over many years, and death seems to be due to some inter-current affection, particularly tubercle.

R. L. F.

Functional Cardiac Murmurs.—(Dr. Jacobi, *American Medical Quarterly*, 1899, Vol. I. No. 2) concludes, as follows. 1. The diagnosis of deranged function in any organ is only a makeshift and justifiable only as long as we are ignorant of the physical cause of that derangement. "Functional" is called the heart murmur, the anatomical cause of which we do not know. That is why a skilled diagnostician may recognize fewer functional murmurs than one who will not diagnose a heart disease unless he have all the symptoms, including hypertrophy and dilation.

2. The same disorders of the blood and nervous system in which heart murmurs are observed in the adult, do not cause them in the small infant. In the latter the heart is larger, more robust, and more powerful, and its contractions are more uniform and effective; its two ventricles are equally muscular, or nearly so, and the valves are smaller. Thus the greater frequency of murmurs in the adult is attributable to the physical condition of the heart, and should not be explained by deranged function.

3. Even in the present limitation of our knowledge we should agree to call functional only those murmurs which are temporary, or intermittent, or variable in their character. They are met with in the neurotic and neurasthenic, in the (adult) anemic, sometimes in syncope or in chorea minor, and occasionally in rheumatism. Even here they should be recognized either as myocardial or as neurotic.

R. L. F.

Observations on the Relation of the Thyroid Gland to the Uterus—(Dickson, *St. Louis Courier of Medicine*, Sept., 1899,) in an experience with about two hundred cases, makes the following observations:

Diseases of the thyroid gland are much more common among women than men (6.55 to 1). A direct sympathy between the uterus and thyroid is manifested in many ways, so frequently in fact as to preclude the assumption of mere coincidence. Thus, before the establishment of the function of menstruation, the thyroid gland is quite often found to be in a hyperemic or engorged condition. When menstruation is established this condition of engorgement usually disappears. In the cases in which the thyroid does not resume its normal dimensions, it usually becomes more engorged before each menstrual period, receding in size upon completion of the period, or again there may be an accession in size at each period, which does not entirely disappear.

Enlargement of the thyroid, however, is not always a premonitor of approaching puberty; it is met within children under eight years of age, and in one instance the thyroid had been prominent since birth. Goitre occurring after puberty is frequently associated with amenorrhea; in one case, in which both amenorrhea and goitre proved very obstinate, an infantile uterus was found. Treatment being directed to the amelioration of this condition resulted in the establishment of menstruation and reduction in the size of the thyroid.

In only one case had a diminution in size of a goitre during the menstrual period been noted, a parenchymatous goitre in a multipara. When a patient with an enlarged thyroid becomes pregnant, the gland increases markedly in size with each pregnancy, to become smaller upon or shortly after delivery, although it rarely recedes to its dimensions before pregnancy.

In many cases pregnancy is directly responsible for goitre, which makes its first appearance early after impregnation.

In several cases it has been noticed that while the thyroid gland was undergoing electrical treatment the susceptibility to impregnation has been

markedly increased, and this with patients that had not been pregnant for several years.

The occurrence of the menopause is not always the signal for the recession or disappearance of a goitre; on the contrary, it may increase at this period. In a few cases the goitre has not given rise to any inconvenience until the menopause. A goitre especially manifest after the climacteric should be regarded with suspicion as apt to be malignant in character.

At three periods of life has the thyroid been found most refractory to treatment: before puberty, during pregnancy, and after the menopause.

In treating diseases of the thyroid gland in women it is wise to examine into the condition and habits of the uterus, and to devote some attention to it as well as, if not indeed, instead of the thyroid. Very active measures should be omitted before puberty, during menstruation and pregnancy, while the climacteric is a time for especial suspicion.

R. L. F.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

What Not to Do in Acute Conjunctivitis.—Dr. Edward Jackson (*Denver Med. Times*), Oct., '99, says, in part:

First—A mydriatic is not useful in simple acute conjunctivitis, and may do harm, aside from the annoyance to the patient. When a mydriatic is needed in acute conjunctivitis it is always to combat some complication, as corneitis or iritis. Be on the guard against glaucoma in using mydriatics.

Second—Don't prescribe cocaine in conjunctival diseases, as it does no good excepting to afford slight relief from the pain, and its frequent or prolonged use does harm. It may be used to lessen the pain of strong astringent application, but holocain is to be preferred. Twelve years ago the author reported a case in which sight was greatly damaged by the formation of an opacity under cocaine treatment, and other cases of damage from this use of cocaine have since been reported.

Third—Do not poultice the eye. The author has seen many cases in which the eyes have been poulticed for acute conjunctivitis and is of the opinion that the eyes are always the worse for this form of treatment. It matters little of what the poultice be made; scraped potatoe, rotten apple, raw oyster, flaxseed, tea leaves, hot or cold—all are harmful. Tea leaves are used so frequently that "the tea leaf eye" is a well recognized pathological entity.

Fourth—Do not bandage or compress in acute conjunctivitis, as the effect of the bandage is somewhat like that of a poultice. The patient may not seem satisfied without a bandage, but some way of treating him and satisfying him that "all that can be done is being done" without working an injury to him.

Even the ice compress, advised by some authorities, in gonorrheal conjunctivites, the author condemns. He has used it and is not satisfied that it is an agent for good. Its enthusiastic advocates admit that it must be promptly discontinued when involvement of the cornea takes place, and corneal complications are the thing to be dreaded in this disease.

The author summarizes his entire paper as follows: 1. Acute conjunctivitis is not one, but several diseases, the successful therapeutics of which rests on an exact diagnosis. 2. Possible eye strain should be considered in

connection with every case not manifestly infective. 3. For all infective forms the most complete cleanliness of the conjunctival sac is the important measure. 4. Mydriatics or cocaine should not be prescribed for acute conjunctivitis. 5. To secure conjunctival cleanliness, all forms of poultice, bandage, and compress are to be avoided.

Cleansing Solution for the Nasal Passages.—G. Sterling Ryerson—*Canadian Practitioner and Review*, Vol. xxv., No. 2.

The writer finding that Dobell's solution was rather harsh and irritating to the nose, in 1884, devised the following formula, which he has used ever since:

R	Sodæ bicarb,	
	Sodæ biborat,	
	Sodii chlorid.....	aa gr. xxx.
	Sodii salicylat.	gr. xl.
	Ol. bergamot.	mij.
	Listerine.	ss.
	Glycerine	i.
	Aq. destil.	ad ʒ viii.

The above was devised without knowledge of Seiler's solution, and has proved eminently satisfactory.

GIBB WISHART.

Adenoid Vegetations with Especial Reference to their Influence Upon the Ear—A. W. Calhoun (*Virginia Medical Semi-Monthly*, August 11, 1899).—The author touches briefly on the well-known facts connected with the morbid anatomy of adenoids and their interference with the respiratory function. He directs attention to two curious circumstances to which attention has not been hitherto directed. These are that children in southern climates do not suffer from adenoids with the same frequency as children in northerly regions, and that the negro is practically exempt from them. He thinks that the seeming increase in the number of cases of adenoids at the present day is because formerly surgeons attributed the symptoms produced by them to hypertrophy of the tonsils, overlooking the great number of instances in which adenoids are associated with the tonsillar hypertrophy. After referring briefly to the various other phenomena resulting from their presence, he proceeds to the consideration of the aural diseases they produce. Deafness in greater or less degree is one of the most prominent, the result sometimes of mechanical obstruction to the entrance of air into the eustachian tubes, sometimes due to an extension of inflammation of them. He thinks they are a frequent cause of suppurative otitis media, pointing out the frequency with which suppuration in the middle ear ceases on the removal of adenoids. This is to be attributed to hyperæmia from rarefaction in the middle ear, leading to hypersecretion, and this in a closed cavity results in pus formation. The article is brief, but original, and full of interest.—*Jour. Eye, Ear and Throat Diseases*.

Remote Results of the Operation for Adenoid Vegetations.—Brindell draws the following conclusions from an analysis of 705 operations performed in Professor Moure's clinic:

1. The reflexes engendered by the presence of adenoid vegetations disappear with the tumor which gives birth to them.
2. Auricular affections of whatever form, consecutive or concomitant to adenoid growths, are greatly benefited by adenotomy.
3. Adenotomy causes at times a swelling of the turbinals; may favor a purulent coryza in some, in others provokes the cure of an atrophic coryza, with or without ozena.
4. In one-half of the patients having vegetations and tonsillar hyper-

trophy, spontaneous retrogression of the latter occurs within a few months after the operation.

5. Recurrences occur in about 1.7 per cent of the cases; these agree with the original vegetations, with which they are histologically identical.—*Jour. Eye, Ear and Throat Diseases.*

The Use of the Mentho-Phenol-Cocaine in Oto-Rhino-Laryngology.—A. Bonain. From the French Menthol and crystalized carbolic acid form a liquid in which cocaine readily dissolves. The writer uses two formulæ:

- | | |
|-----------------------------|-----------|
| 1. Acid carbolic cryst..... | } aa. 1.0 |
| Menthol..... | |
| Cocaine hydrochlor..... | |

Which is anæsthetic.

- | | |
|-----------------------------|------------|
| 2. Acid carbolic cryst..... | } aa. 0.50 |
| Menthol..... | |
| Cocaine hydrochlor..... | |

Which is anæsthetic and caustic.

These solutions meet many indications in the various affections of the ear. In the *nose* the writer has used the solutions in exploratory punctures of the maxillary sinus, in galvano-cauterization of the septum for ulcer or epistaxis, or in the reduction of inflamed tissues; lastly, for anæsthesia of the anterior orifices of the nasal fossæ, a region upon which cocaine has no action; in the latter instance the application should continue eight to ten minutes.

In the *pharynx* the anæsthetic has been used in galvano-cantherization of hypertrophied adenoid tissue in the oro-pharynx and at the base of the tongue; for the latter purpose cocaine is usually inefficient.

In the *larynx* the anæsthetic has been used for galvano-cauterization of the epiglottis and arytenoid eminences, when infiltrated. It has proven most efficacious in combatting the dysphagia of tubercular ulcers of the pharynx and larynx, producing complete anæsthesia, lasting at times for four full days.

The caustic solution has been used for destroying tubercular vegetations; the application should be made over limited areas, and preceded by a mild solution of cocaine, to avoid too much burning.

Publishers' Department.

IN THE ADVERTISING PAGES of this issue will be found that of Wm. R. Warner & Co., which explains to physicians why their Pil. Peristaltic should be prescribed by them. There will be no doubt after a careful study of the formula, but that it is an admirable pill for bilious disorders and their concomitant conditions. They are small, efficacious and effective. Messrs. Warner & Co. advise, "if you would always have uniform results from your prescriptions, specify Warner." The usual result of using Warner & Co's pills would seem to indicate that physicians should take time to specify and get the best. It has been said "that the Warner Pill is the criterion of a perfect pill." And there are many physicians throughout the world who would no doubt bear out this assertion.

SANMETTO IN ANEMIC UNDEVELOPED WOMEN.—I have used Sanmetto with profit in a case of a young women who was troubled with a very irritable bladder and urethra, caused from an excess of uric acid crystals in the urine. The Sanmetto accomplished what I did not expect. The mammæ had never developed very much, nor the chest and shoulders. She was also quite anemic. I gave her a bottle of Sanmetto with no apparent improvement except toward the last she felt a little more vitality. I then procured another bottle at the drug store here

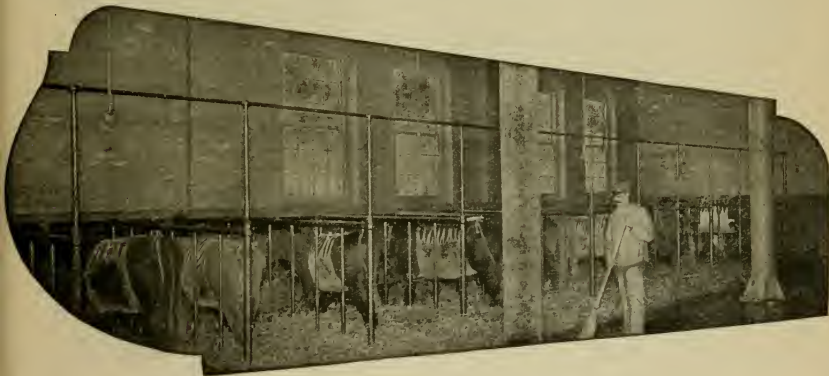
and gave her about half of it. There is now marked improvement in her general health, the mammae are about double the former size; her shoulders and neck are becoming very much more plump, and her chest is so much broader that she can scarcely wear the clothing worn before. She is looking much better. But nothing seems to dissolve the uric acid crystals as yet.

F. E. DOANE, M. D.

Kansas City, Mo.

VACCINE VIRUS.—The vivid descriptions of smallpox epidemics in the pages of the great historians ought to teach us what the loathsome disease must have meant to all mankind before the efficacy of vaccination became generally acknowledged. The principal stock in trade of those who oppose vaccination is borrowed from the ancient and discarded method of "arm to arm" inoculation, syphilis and possibly other diseases being thus communicated from child to child. In the vehement objections to animal vaccine the tubercular germ has been the great bugaboo.

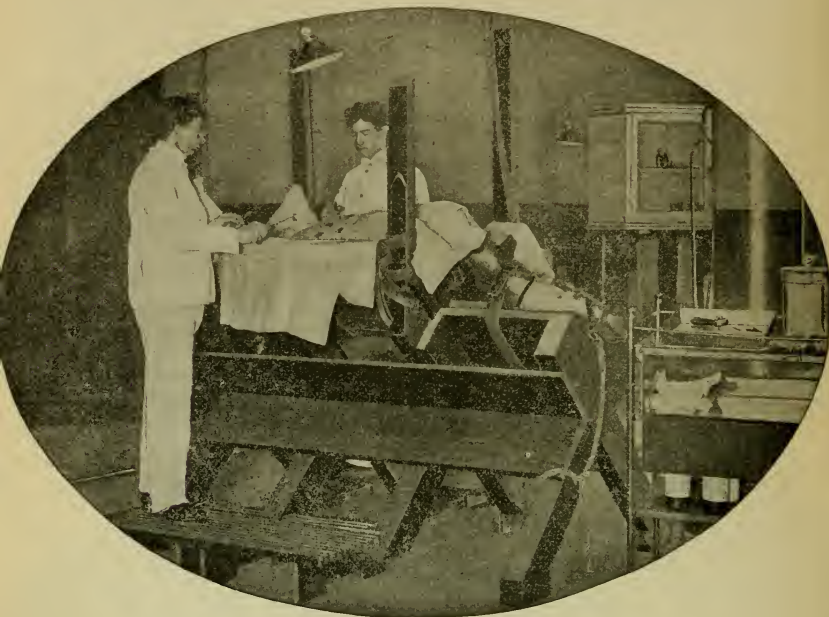
Messrs. Parke, Davis & Co. have in preparation an illustrated article on the propagation of vaccine in which they say, in part, "Our methods of selecting cattle and use of glycerine to kill any possible germs in the vaccine exclude this danger entirely. But to those unfounded and childish grounds of opposition must be added others of more weight and truth. Not without reason have the anti-vaccinationists protested against the ulcerations, abscesses and sloughings with which vaccinators have been only too familiar in the past, thanks to the use of germ-infected "points." * * * * * We use only the



healthy heifer about eighteen months old. The animal is first examined by Dr. E. A. A. Grange (formerly Michigan State Veterinarian), for any evidence of disease, external or internal. The Tuberculin test is applied in every case, and any heifer which exhibits a suspicious rise of temperature is excluded. When the animal is finally pronounced in good health, it is scrubbed from head to foot and * * * the abdominal surface is shaved and is then scrubbed once more with sterilized water and disinfected; and after a final washing with sterilized water, the abdomen is ready for scarification which is quickly performed with sterilized instruments. The "seed" vaccine is applied, rubbed in thoroughly, and permitted to dry. The "field" of operation is then covered with an aseptic and impenetrable cement which effectually excludes germs. Over the cement is placed a layer of absorbent cotton, and over the cotton a protective bandage. The heifers are now taken to the propagating room (see fig. 1 showing one row of stalls), where they are kept for about five days. Men are on hand to collect feces, etc., all excreta being removed from the room immediately.

After about five days the heifer again returns to the operating room. The hoofs are carefully cleaned and the various cleansing operations described above

as preliminary to inoculation are now repeated. The animal is placed in a special frame (fig. 2) and the dressings are removed ; the whole field of operation



is cleansed with sterilized water and * * the external scab is removed and destroyed. The pulp of the vaccine vesicles with exuding serum is now carefully collected * * and placed in sterilized containers, containing glycerine.

The vaccine is now brought to the Biological Laboratory, and is run through sterilized grinders until a homogenous mixture is obtained. The requisite amount of dilutent is added and the mixture is shaken for several hours in order to make a perfect emulsion. The vaccine is now examined bacteriologically and physiologically. Every single parcel of our vaccine is tested on heifers before permitted to go on the market."

WINTER COUGHS—GRIPPAL NEUROSES. That codeine had an especially beneficial effect in cases of nervous cough, and that it was capable of controlling excessive coughing in various lung affections, was noted before its true physiological action was understood. Later it was clear that its power as a nerve calmativ was due, as Bartholow says to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tract. In marked contrast is it in this respect to morphine. Morphine dries the mucous membrane of the respiratory tract to such a degree that the condition is often made worse by its use ; while its effect on the intestinal tract is to produce constipation. There are none of these disagreeable effects attending the use of codeine.

The coal-tar products were found to have great power as analgesics and antipyretics long before experiments in the therapeutical laboratory had been conducted to show their exact action. As a result of this laboratory work we know now that some of them are safe, while others are very dangerous. Antikamnia has stood the test of exhaustive trial, both in clinical and regular practice and has been proven free from the usual untoward after-effects which accompany, characterize and

distinguish all other preparations of this class. Therefore Antikamnia and Codeine Tablets afford a very desirable mode of exhibiting these two valuable drugs. The proportions are those most frequently indicated in the various neuroses of the larynx as well as the coughs incident to lung affections, grippal conditions, etc.—*The Laryngoscope*.

POWERS & ANDERSON, Successors to Bartlett, Garvens, of Richmond, Va., who are undoubtedly the leading Surgical Instrument dealers in the South, are offering a special bargain, in our advertising columns, of a neat, compact, complete and thoroughly reliable faradic battery.

There is practically nothing to get out of order with this battery, it lasts for a long time and the renewal of the entire element is only a matter of a few cents, as it is not necessary to send it to the factory for repairs.

Doctors contemplating the purchase of a good, useful faradic battery, which is always ready, will find it to their advantage to write these gentlemen; in fact, they will find it to their advantage to write to them for quotations, descriptive circulars, etc., of anything a physician or surgeon may require.

These gentlemen are anxious to secure the trade and patronage of the Southern doctors, and they assure us that they will do everything in their power to give satisfaction in price, quality of goods or any other particular.

We hope for great things from this house, as we are informed they are about to manufacture nearly everything in their line, and will be better prepared to meet every competitor in the field.

HAY FEVER AND ACUTE CORYZA.—Dr. B. J. Wetherby, of Wilkes-Barre (Medical Council, November, '99), calls attention to a new and very serviceable application of heroin, namely, its use in the treatment of hay fever and coryza. In these conditions he recommends the following formula :

Heroin 1 grain,
Atropia Sulph. 1-25 grain,
Caffeine Cit. 15 grains,
Salophen 75 grains.

M. Ft. Caps No. XV.

In the author's own case of hay fever one capsule was sufficient to relieve the sneezing and the profuse nasal secretion; and four capsules a day kept him perfectly comfortable. Since this favorable experience Dr. Wetherby has prescribed the same treatment in a number of cases of coryza and hay fever with equally positive results in every instance. He believes that by its use we can promise immediate relief to the large army of coryza patients so common at this season of atmospheric changes.

Asthma.—

R Heroin hydrochlor 0.1
Aqueæ amygd. amar. 20.0
M. S. Fifteen to twenty drops t. i. d.

Or :

R Heroin 0.15
Extr. gentian 2.0
Pulv. glycyrrh. q. s
Ft. pil. No. xxx. S. One pill t. i. d.

—*Floret*.

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[Entered at the Post-Office at Charlotte, N. C., as Second-class mail matter.]

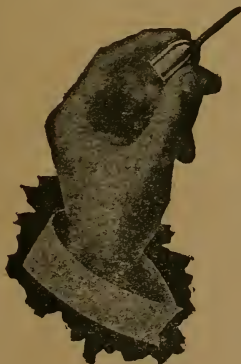
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A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, DECEMBER 20, 1899.

No. 12

Original Communications.

Croupous Pneumonia in Children.

By J. HOWELL WAY, M. D., Waynesville, N. C., Examiner in Anatomy North State Board Medical Examiners.

HISTORY.

THE first quarter of the nineteenth century so prolific of advance in all branches of science, had been well spent before the distinction between bronchitis and pneumonia in children had been generally recognized. Pointed out first in 1823 by Leger, yet pneumonia was for many years confounded with pulmonary collapse which condition was described by Jorg in 1835 and called by him atelectasis. The discovery in 1844 by Legendre and Bailly that collapsed lung could by simple inflation be restored to its normal state demonstrated conclusively the essential differences between atelectasis and pulmonary hepatization. In 1851 Rilliet and Barthez definitely established pathological distinctions between lobar and lobular pneumonia. Later the growth of medical science in general and the accumulation of more precise observations on the temperature range, *et cetera*, of pneumonia paved the way for the acceptance of the opinion formulated first in 1872 by Juergensen, and to-day admitted on all hands by our most eminent clinicians, that croupous pneumonia is not a disease of simple inflammation but has its genesis in infection. More recently the work of Klebs, Eberth, Koch, Friedlander, Fränkel, and others with cultures of certain bacteria found in the lungs of patients dead from croupous pneumonia in communicating the disease by inoculation to animals has emphasized this now general belief.

NORMAL ANATOMY.

In a marked degree to the third or fourth year of life, and to a material but lesser degree up to the seventh year, the clinical characteristics and

pathological anatomy of croupous pneumonia are in some respects unlike the disease in adults. Taking for examination (Prudden) the lungs of a five months foetus it is noted that the bronchi provide the bulk of the air-space. Rudimentary air-spaces exist as bud-like dilations on the tips of the branches of the bronchial tree. A loose, delicate connective tissue extending its ramifications between and around the air-spaces completes the remaining bulk of the lung, intervening connective tissues and air-spaces being about equal in extent. As development proceeds the air-spaces, at first mere terminal buds on the bronchial tree, push their way farther and deeper into the loose connective tissue matrix, enlarging, sub-dividing until finally in early adult life they practically occupy all the available space among the branches, and the formerly loose connective tissue is contracted at last into a stroma of thin dense bands. Upon this stroma are laid the snug-fitting epithelial linings of the air-spaces while through it is distributed the vascular nutritive systems of the pulmonary structure. Toward the end of foetal life the air-spaces and connective tissue interspaces are of nearly equal extent. In the first year or two of life the alveolar walls are thick and loosely contain their blood-vessels, and it is not until the third or fourth year that the processes of growth have made the tissues assume their more ripened relations of adult existence. Again, in the newly-born the mucous lining of the bronchial tubes is very loosely connected to the muscular walls. Later the underlying connective tissue gradually binds more closely the mucous membrane to the fibro-muscular tube. During the first two years of life the capacity of the air-cells is relatively much smaller than in the adult and the bronchial tree larger. The blood vessels being more loosely placed in the connective tissue stroma more readily congest, become tortuous and encroach upon the air-spaces, the clinical significance of which is apparent. At birth the air-spaces developed from the terminal bronchi are covered with a continuous layer of flat, nucleated epithelium. In the subsequent growth of the expanding alveolus in adult life it is believed that the number of epithelial cells lining the air-spaces have not increased, but their size is merely enlarged and some of the flattened epithelia lose their nuclei and become expanded to form thin plates called respiratory epithelium. In short, the lung of the infant materially differs from that of the adult in these respects: proportionately the extent of the air-spaces is less than that of the bronchial tubes: the connective tissue stroma exists in greater abundance with greater tendency to cell-proliferation: the sub-mucous connective tissue of the bronchioles is loose and more abundantly supplied and its vessels are more loosely held. The cells lining the air-spaces form a continuous layer and while the air-spaces themselves are smaller, their epithelium proliferates more abundantly. The absorbents perform their functions more slowly, the blood vessels assuming a more important role. In considering tissues so little removed from the embryonal type of cells it is to be remembered that embryonal cells tend to rapid multiplication thus appearing freely in inflammatory products.

PATHOLOGICAL ANATOMY.

Aside from certain minor modifications growing out of the anatomical peculiarities referred to, the morbid anatomy of croupous pneumonia in children does not essentially differ from the results induced by the same disease in adult life. The well-known blood changes are identical. The classic stages of hyperæmia, solidification, and softening or liquefaction are present. Rarely indeed, however, are suppuration and gangrene met with in children. The relative order of frequency with which the different parts of the lung are affected is as follows (Northrup): right apex, left apex, left base, right base. Of course more than one region may be involved at the same time.

ETIOLOGY.

While croupous pneumonia was considered a purely inflammatory affection it was easy enough to ascribe the source of the disease to "cold." The idea of the direct influence of exposure in its causation naturally received much support from its well-known greater prevalence in the winter and early spring months; fully two-thirds of all cases occurring at this season leaving the one-third developing in the summer and autumn months. The accompanying cough was also very suggestive of "cold." However it is a notable fact that pneumonia is not more prevalent in cold than in temperate climates, and it develops in larger proportion of cases without the patients having experienced any known exposure. Formerly it was held that children were practically exempt from lobar pneumonia but more recent opinion (Minot) inclines to the belief that "it is one of the most frequent of the severe diseases" of childhood. Infants at the breast are affected, more frequently children of from one to two years, and still more often children of from four to seven years. Males are apparently more often the subjects of croupous pneumonia than females. Children, like adults, are more liable to a recurrent attack. In this connection it is of interest to record the case of a three-year old boy whom I attended with a typical case of croupous pneumonia in 1887. In 1889, 1892, 1894, and for the fifth time again in 1897 he had a fresh attack of the disorder. Otherwise this boy has enjoyed excellent health and is a growing vigorous lad. Delicate or cachectic children, all things considered, do not seem so liable to contract croupous pneumonia as the more vigorous and healthy. The now generally admitted infectious nature of croupous pneumonia affords a most ready explanation of its not infrequent occurrence in houses with defective sanitation or in individuals exposed to endemic infectious influences. An interesting illustration of the latter occurred within the scope of my personal observation several years ago. During the winter of 1893 a portion of a mill-dam which had been in use for many years was washed away letting off quite a pond of water and exposing to the air quite a little patch of earth which had been water-covered for some years. The owner at once sought to repair the damage and a small force of hands were at once put to work rebuilding the break. Of seven men engaged

at work on the dam five were within a day or two of each other, stricken down with typical croupous pneumonia. The route through which infection enters the system is not definitely determined though the consensus of opinion favors the view of the infectious agent being taken in by inhalation. While it is now a generally accepted theory that croupous pneumonia is a specific infectious disease with local pulmonary lesions produced by the systemic invasion of micro-organisms which multiply after the manner of a ferment, yet bacteriologists do not seem to have quite definitely located the precise form of organism or bacteria which incites the disease. Whether the inciting germ be always *sui generis*, or whether pneumonia can be induced by more than one micro-organism, or whether certain micro-organisms apparently differing in appearance and behavior, but all effective, may not be identical, though in different forms of growth or rather different stages of development, is not determined, but the observations of competent pathologists incline to the belief that the pneumococcus of Fraenkel is the specific germ. A peculiar fact in connection with this is that, according to the same authority, this same micro-organism is normally present and flourishes in the saliva of healthy human beings. It is also said to be frequently associated with cerebro-spinal meningitis—all of which tends to give a measure of support when critically examined, to the view that the "germ theory" of pneumonia, as well as the "germ theory" for disease in general, must while it is accepted as being with our present light probably the best etiological solution of many pathological questions, yet it is not to be held too tenaciously else outside investigation along other lines be neglected and possible real progress be stifled. The recently expounded theory of Smith (20th Cent. Practice) is suggestive and interesting as possibly foreshadowing a renaissance in medical etiology with a possible re-vamping of some of the older ideas of humoral pathology.

SYMPTOMS.

In children croupous pneumonia is an acute disorder of short duration often tending to a conclusion in five or six days and seldom lasting longer than eight or ten days. Ordinarily it occurs while the patient is in good health as a primary affection. In common with the zymotic class its course usually consists of three stages—the effervescence lasting one or two days; the fastigium running perhaps three days; and the defervescence one or more days. Prodromata such as cough, pain in the side, drowsiness, anorexia, chilliness for a day or so before the attack, may be noted but as a rule the absence of prodromata is as notable a feature of croupous pneumonia in children as it is in adults. In place of the initial rigor so frequently seen in the pneumonia of adults and but rarely in children, the disease is usually ushered in with vomiting or occasionally in the very young with convulsions. Mental apathy with delirium, restlessness, fever, a hot flushed skin, checked secretions, rapid pulse, increased respirations with an elevated temperature rapidly follow. The temperature during the stage of effervescence not infrequently reaches a higher degree than during the fastigium, usually ranging

from 103° to 105° or even higher in serious cases. The length of the fastigium varies from two to five days during which there is little change in the general symptoms. The morning temperature is from 102° to 105° , at times one or more degrees higher. Cough, mild in character, half suppressed and not as a rule urgent, is apt to continue. A deep, rich hued flush (in serious cases it may be deepened to a mahogany hue) is noted on one or both cheeks, usually if the child lies to one side particularly noticeable on the exposed cheek. Labial herpes are often present. Complete loss of appetite persists, water being often the only thing taken willingly. The breathing is hurried and the nostrils usually dilate with each inspiration.

The third stage, defervescence, like the first, is apt to begin suddenly and is more frequently ushered in during the night. A marked fall of temperature from a point as high as the highest to normal or even subnormal, is of common occurrence. Coincidentally an improved condition of mental action, of skin, pulse, secretion, and respiration is noted. The physical signs of croupous pneumonia in children are in the main similar to those manifested in the adult, though the greater frequency with which the apices are affected in the former will make a corresponding difference in their location. Holt makes the very pertinent suggestion that unless the region high in the axilla be carefully examined, not infrequently we shall fail to elicit the customary physical signs. For anatomical reasons fine crepitant rales are less often noted than in adults. True bronchial respiration is very clearly heard during the stage of hepatization; later it is replaced by moist crepitation. At times in the early stage the indications furnished by percussion are of more diagnostic consequence than those of auscultation, but if the pulmonary lesion be separated from the chest wall by a layer of healthy lung tissue a more forcible blow may be necessary to evolve them. The mental state of children is as a rule one of apathy, having little breath to waste in opposition the infant or child is quite tolerant of examination. The pain in the side is not often urgent, at times it is wholly absent. Deep breathing and coughing excite it, for this reason both are so far as possible suppressed. The pain does not always correspond with the seat of the lesion, not infrequently it is referred to the epigastrium. The position in bed varies with the site of localized affection, the decubitus being ordinarily toward the affected side. Complete loss of appetite exists and according to Northrup this symptom has not received the attention it deserves. In older children I have often noted the rust-colored sputa so characteristic of the disease in adults, but of course it is not seen in infants and young children who instinctively swallow the expectoration. The rate of breathing is always increased, and that too as in adults, out of proportion to that of the pulse: the normal ratio of one respiration to four and a half cardiac pulsations being changed to one to two and a half or even nearer. This perverted pulse-respiration ratio is not pathognomonic of croupous pneumonia, for it may occur in other conditions where fever is present with diminished respiratory area as in large pleuritic or pericardial effusions, though in pneumonia it is very significant begin-

ning as it does before other signs are observable and persisting until they have cleared. Nervous symptoms while more often noted in infants are not at all confined to them, at times being so pronounced as to give rise to the suspicion of meningitis—the so-called “cerebral pneumonia” which the older authorities claimed to be always associated with apical lesions. This is however denied by such eminent pædiatrists as Eustace Smith and Holt.

In favorable cases the subsidence of the violent symptoms is usually rapid. Exceptionally the reverse may occur. Secondary croupous pneumonia may complicate other diseases, notably pertussis, bronchitis, measles, enteric fever, diphtheria, *et cetera*; yet pneumonia as an intercurrent or concurrent affection is most usually of the catarrhal or broncho-pneumonic type. Pneumonia itself may also be complicated by intercurrent affections which of course add greatly to its gravity.

DIAGNOSIS.

Ordinarily the diagnosis of croupous pneumonia in children is not difficult. The sudden onset of the disease and its acute character, the hacking suppressed cough, the fremitus of the cry, the increased respiration, the perverted pulse-respiration ratio, the dilated nostrils during inspiration, the characteristic temperature range and the signs elicited by physical examination, are the diagnostic points. Having scant breath to expend in struggling, as a rule the little patient submits to a scrutinizing examination with less resistance than is customary with sick children. In examining sick children it is well to bear in mind the proposition of Eustace Smith that “in any case where the infant screams loudly during the examination of the chest, the probabilities are against the lungs being seriously diseased.” While in certain cases the physical signs may be delayed or absent owing to a centralized location of the pulmonic lesion, the general symptoms are so characteristic as to leave little doubt as to the diagnosis. Meningitis, catarrhal or broncho-pneumonia, or gastro-intestinal catarrh may sometimes need exclusion in a question of diagnosis. Occurring as a primary affection as a rule in previously healthy children, a brief duration, with a definite temperature range, and a localized pulmonic lesion, there should ordinarily be little difficulty in differentiating it from broncho-pneumonia which is so often a secondary affection, is indefinite in its course and temperature range and involves both lungs. In croupous pneumonia rales are heard in the early stage, disappearing after consolidation and reappearing with resolution. In broncho-pneumonia consolidation occurs in different limited areas, comes later, and may not appear at all. “If the pneumonia is primary, and at the apex only, it can be pronounced lobar without hesitation” (Holt). Should marked intestinal irritation with diarrhoea accompany the initial vomiting a case of croupous pneumonia might be mistaken for gastro-intestinal catarrh, but it ought not to be. Marked prominence of nervous symptoms might suggest acute meningitis, but it is to be remembered that acute idiopathic meningitis is one of the rarest of diseases. Meningitis is most often sec-

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ondary to middle-ear disease or mastoiditis the recognition of which would be evident.

PROGNOSIS.

Contrary to the popular belief and likewise in contrast with croupous pneumonia in adults, occurring in healthy children it is not only rarely fatal, but has no special tendency to inflict permanent damage to the lung. Being confounded with broncho-pneumonia, a far more serious affection, doubtless accounts for the popular belief in its severity. The previous health of the child, the existence or non-existence of cachexia, and the sanitary and hygienic conditions are important factors for consideration in estimating the probable result of a given case. The circulation and respiration being naturally very rapid in croupous pneumonia in children, rapid pulse or hurried breathing are of less significance than in other affections. A pulse of 150 or respiration of 50 need occasion no special alarm. Increase of the respiration rate beyond fifty would invite a re-examination to ascertain if the disease had extended to another lobe of the lung. A temperature of 105° or above, is not alarming if lasting only for a day or so but if persistent is dangerous. Irregularity in either pulse or breathing is an outward symptom indicating exhaustion. Termination of the fever by lysis rather than crisis is not necessarily unfavorable. Delicate children offer poor resistance to an affection which cripples the function of oxygenation and it is to the influence of the constitutional weaknesses of the organism that the greatest mortality in primary croupous pneumonia is due. When croupous pneumonia occurs as an intercurrent affection in the course of other diseases the prognosis is necessarily grave. Cerebral symptoms, as pronounced delirium or mania, are very alarming but unless associated with meningitis not necessarily fatal.

TREATMENT.

While under intelligent direction much may be done to assuage the severity of the disease, to promote the comfort and to facilitate the recovery of the little patient with croupous pneumonia, the persistent fact should be recognized that there are no specifics for the disease. In the language of an honored former teacher of mine "if you will take care of the patient, gentlemen, the patient will ordinarily take care of the disease." In no disease is it more important to have the advantages of a well-ventilated roomy apartment. Too often sick children are kept in a small room uncertain as to its sufficiency of light and air and with only its being "next to mother" to commend it. Put the child with croupous pneumonia in a bed in one of the best lighted and ventilated rooms of the house and from the outset give the most careful attention to every detail of nursing. Keep its clothing and bedding smoothed out and straight, its pillow comfortably arranged, bathe it with warm water followed by an alcohol sponge, or again if the skin be dry and hot rub it with sweet oil or some pleasant smelling unguent, moisten its dry lips from time to time, encourage it to change its position moving

it about in a way calculated to incite freer breathing in all parts of the lung, give it water often and regularly, also lemonade, orange or grape juice, in short remember the little patient needs a great deal of nursing and not very much putting of drugs into its stomach. This mentioning of little things possibly seems trivial, but after all the successful practice of medicine is in the main made up of attention to the minor details. Ample oxygen with a regular temperature of 65° to 70° F., being secured it is well to add moisture. Dry air tends to thicken and render more tenacious the mucus while moisture promotes both the comfort and the expectoration of the patient. In devising means to render the air moist it is well not to permit the air to become vitiated for steam cannot take the place of oxygen. Milk with lime water or peptonized milk is for the majority of cases the ideal food and one which is most uniformly readily obtainable. Seen in the early stage it is well to initiate the medicinal treatment by the administration of a mercurial. For the feverish irritation many and various of the antipyrets have been suggested—personally I have found the use of warm baths followed by the exhibition of a mixture of tr. aconite in small oft-repeated doses in combination with the old-fashioned spt. etheris nitrosi and liq. ammon. acet., a very satisfactory general plan of treatment at this stage. To this if there is much restlessness fluid Dover's powder may be added with advantage. Where cerebral symptoms are pronounced, chloral hydrate is invaluable, calming the irritated nervous system and also lowering the temperature. Where the respiration is unduly hurried, the cough dry and the expectoration scanty or not at all, hot baths with ipecac wine or syrup give most relief. The time-honored flax seed meal poultice if in the hands of a capable intelligent nurse may be of real service. Without an efficient nurse a close-fitting jacket of cotton batting is to be preferred. Opium in the form of Dover's powder or paregoric may be occasionally needed for relief of pain and cough. The use of the specific antipyretics in doses sufficient to cause a marked lowering of temperature, while affording at times a temptation to many practitioners, is mentioned only to be unhesitatingly condemned. Children bear high temperatures with far less of the rapid prostration so pronounced in the hyperpyrexias of adults. Just before and in the beginning of the stage of resolution strychnia and alcohol are often of undoubted value. This statement as to the undoubted value of alcohol is made with a full appreciation of the fact that the alcohol treatment of disease has been and is very much overdone by many excellent practitioners. Carbonate and muriate of ammonia along with sanguinaria, tolu, prunus virginiana and others of the expectorant class are also useful at this time notwithstanding it is just now the fashion to prate about the passing of the expectorant from the domain of up-to-date practice. Local applications of turpentine, mustard and iodine have each their appropriate place. In convalescence a tonic regimen and measures calculated to build up the system are in order and it is here the therapeutic resources of the physician are frequently put on trial. Quinine, which during the active periods of the disease probably has no appropriate place unless

there be present a malarial element, becomes one of our most valued tonics. Where slight fever persists, a careful examination should always be made for a possible pyothorax. If present aspiration should be resorted to immediately, and while it may need to be repeated it, with appropriate constitutional treatment, is often sufficient to effect a cure without incision and drainage. Croupous pneumonia occurring as an intercurrent malady in the course of other affections is fraught with the gravest possibilities and should receive the freest possible stimulation from its recognition.

Acute Tonsillitis.

By EDWIN GLADMON, M. D., Southern Pines, N. C.

THERE is nothing more common than "sore throat" which is almost equivalent to saying there is nothing more common than tonsillitis. The terms are not exactly synonymous but when this disease is of the acute form, we have as a rule the pharynx and contiguous parts involved.

Acute tonsillitis is usually classified in five varieties, but clinically it may be considered under two heads. Excluding the common infectious diseases we have acute tonsillar inflammation with abscess and without it. As to etiology little need be said, for one reason because little is known. Though in this connection the rheumatic diathesis, however indefinite that term may be, is nearly always a potent factor and should be so considered when outlining treatment.

In the earlier stages ocular inspection gives little information as to which variety we have to treat; that is, we cannot at first determine whether an abscess is or is not likely to follow.

The text books give us as a diagnostic point, the temperature, claiming that in purulent cases it is much higher than in non purulent ones. This is not my experience and no reliance can be placed on this point more especially when dealing with children. Of course if abnormally high temperature persists for several days it would have this indication but other symptoms are then present that are more reliable.

Tonsillitis with abscess is relatively rare compared with tonsillitis without abscess. It should be even more rare. Nearly every case that unaided would eventuate in abscess can be averted if seen at a sufficiently early period. In the treatment of acute tonsillitis a cardinal principle should be the avoidance of every form of local medication in its nature an irritant. The old potash and iron treatment was and is barbarous, and has nothing to recommend it except its antiquity. When patients recover after a treatment of alum, iron, tannin, gallic acid, iodine and similar drugs they get well in spite of the treatment and not because of it, like a man who uses alcohol and tobacco and yet lives a century. When we reflect how exquisitely

tender and sensitive is an inflamed mucous membrane it seems that the kind of treatment indicated is almost self-evident—to soothe and soothe again.

With whatever variety we have to deal the first indication is a clean intestinal tract. This is best accomplished by a mercurial followed by salines. In children in whom the catarrhal and follicular varieties predominate this purgation and aconite is often all that is required. When a wash is indicated something mild like borolyptol or hydrogen peroxide should be used.

There is seldom seen in children another disease when the temperature reaches such a height, or one where it more readily yields to treatment.

With adults more energetic measures are necessary. Bearing in mind the possibility of pus formation, calcium sulphide should be given in grain doses at frequent intervals until all danger from this source has passed. After a thorough cleaning of the intestinal tract, salicylate and benzoate of soda of each five or ten grains, should be given every two or three hours. Essence of pepsin is a pleasant vehicle and with it should be combined a dram of borolyptol to each dose. If pain is severe the coal tar preparations answer fully, and these combined with aconite or gelsemium suffice to control its force.

No benefit is derived from painting the tonsils with astringents; but where follicular exudation is extensive or necrotic membrane present, the application of hydrozone or peroxide is advantageous. Gargles are useful as they can be held in the mouth, and the mild antiseptics answer best for this purpose. To these, alternately, should be added a spray of some fluid petroleum, either plain or combined with menthol. Protonuclein is useful especially where the pharynx is involved. This should also be used as a gargle, the special powder mixed with about three times its bulk of bicarb. soda.

Of the older remedies the only one I have found valuable is guaiac, and this to my mind is but another evidence of the oftentimes rheumatic origin of the disease.

The treatment here outlined systematically followed, will carry all cases through with a minimum of pain, and a minimum of time. When in spite of treatment suppuration seems inevitable incision is indicated at once. There is nothing to gain by delay. A long application of heat to promote softening is entirely unnecessary.

Chronic follicular tonsillitis is very often a factor in causing acute exacerbations. This should of course be cured but its treatment is outside the scope of this paper.

Acute Pneumonia in Children.

BY W. L. HARRIS, M. D.

Attending Physician to the Virginia Beach Infant Sanitarium and Resident Physician to the Princess Anne Hotel, Virginia Beach, Va.

CASES of acute pneumonia are divided, from an anatomical point of view, into broncho-pneumonia and lobar-pneumonia.

Broncho-pneumonia is an affection of the lungs characterized by inflammation of the smaller bronchi and alveoli. It includes all cases of so called capillary bronchitis, for it is useless to attempt to separate the two diseases, as there is no case of capillary bronchitis without some inflammation of the adjacent lung tissue which really makes a pneumonia. Broncho-pneumonia is one of the most frequent and fatal of all the diseases of the lungs in children under three years of age.

The disease may be either primary or secondary—if primary it is usually due to the pneumococcus, and in many cases the pneumococcus alone is found. The great majority of cases are secondary and occur as complications or sequences of bronchitis, influenza, scarlet fever, diphtheria, measles, pertussis and gastro-intestinal infection. The secondary cases are due to a variety of causes and there is usually mixed infection, the streptococcus being found in the worse cases, as a rule.

The lesions are irregular in their distribution, and usually occur in both lungs. The course of the inflammation varies in its rapidity, at times attacking a small portion of the lung and again being more diffuse in its onset, and gradually invading larger areas.

The clinical picture presented by broncho-pneumonia is not a constant one. There is no typical course, owing to the many different lesions which commonly occur in the disease, and which by their greater or less severity make its course exceedingly irregular. In so many instances is broncho-pneumonia secondary to some other disease that the symptoms are necessarily modified by those of the initial affection.

The symptoms which characterize a broncho-pneumonia in the ordinary course of the primary disease which it may accompany, is a rapid or gradual rise of temperature, persistent cough, extreme prostration, dyspnea, rapid respiration, quickened pulse, and sometimes cyanosis. Any of these symptoms should suggest a careful and thorough examination of the chest. The physical signs of broncho-pneumonia will vary according to the area and extent of the disease. On percussion we can usually detect dullness over the affected area, but in some cases this is impossible, owing to the small size of the diseased area, and again when the diseased areas are far apart. Bronchial respiration, increased vocal resonance and fremitus can be detected, moist rales of all kinds may be heard.

Broncho-pneumonia, in favorable cases, usually terminates within seven to twenty-one days. Many fatal cases last only a few days. The temperature usually ranges from 102° to 105° F., and is not continuous, but rather of a remittent type. Where the temperature drops to normal it is usually a gradual drop, and resolution begins at once, but is usually very slow and patients have to remain in bed for weeks.

The diagnosis of broncho-pneumonia is always a simple matter, especially in the beginning, and care should be taken to differentiate it from tuberculosis, lobar-pneumonia and severe bronchitis.

In the prognosis of broncho-pneumonia many things have to be considered. Age is an important factor. A large majority of the fatal cases occur in the first two years of life. The younger the child the greater the danger. It is very fatal in pertussis and influenza. A persistent high temperature is always grave. In cases lasting over three weeks or more, death is probable and is usually due to exhaustion. Broncho-pneumonia is a serious disease and should be so considered; the mortality in private practice is from ten to thirty per cent., depending upon circumstances, and in institutions it is from thirty to fifty per cent.

The treatment of broncho-pneumonia is essentially that of the disease it complicates. Every effort should be made to sustain the child by good nursing, proper food regularly administered and stimulating and tonic drugs. Strychnia in solution should be given from the start every three or four hours, and later on it may be given oftener if needed. Brandy or whiskey may be given with good effect in the majority of cases. Avoid, so far as possible, the use of opium, ipecac, and all drugs depressing to heart or respiration. Incessant cough and troublesome nervous symptoms may be controlled temporarily by a single dose of codea or phenacetin, but these drugs should be used with great judgment. The temperature does not often require any attention, and it seldom does as much harm as the drugs given for its relief. Hot mustard baths and packs are very efficacious in producing a profuse perspiration and lowering the temperature several degrees. The cold packs to the chest or the cold bath may be used with great benefit to lower the temperature, but these have to be used cautiously as there is such a prejudice among the laity against cold applications of every kind in pneumonia it is often not advisable to use them. Cold to the head is good to allay nervous symptoms. Blisters should never be used in children, but counter irritation of some kind is good in almost all cases. It is preferable to use mustard paste over the chest, allow it to remain for five or ten minutes only and it may be repeated every four or five hours. There is a difference of opinion as to the use of the oiled silk jacket which was so popular a few years ago. It is a question whether it does any good, but it does no special harm and may be used for effect if desired. Poultices are very troublesome and are seldom properly made or properly applied. If properly applied they seem to give good results at times.

In extreme cases where there is cyanosis and short, jerky respiration and

blueness of the nails, the patient requires active and heroic treatment. Hypodermic medication should be resorted to. Strychnia, whiskey, ether and caffein may be given. When the child seems as if it is about to suffocate and large mucus gurgles are heard in its bronchi and throat, every effort should be made to excite coughing so the lungs may be cleared of the obstruction. Ammonia may be given and electricity may be applied, cold douches may excite coughing and respiration.

The second form of pneumonia to be considered is lobar-pneumonia. It is an acute, self limited disease of the lung, running a different course and caused by the *diplococcus pneumoniae*. It is not so common among children as broncho-pneumonia, and under three years of age it is rather rare. Sudden atmospheric changes and exposure to cold seem to render a child more susceptible to the invasion of the organisms that cause the disease.

The pathological condition which is found in lobar-pneumonia is an exudative inflammation which involves progressively the whole of one lobe or of one lung or portions of both. The stages of congestion, red and gray hepatism take place in succession as they do in the adult. It runs its course in from five to nine days.

The symptoms of acute lobar-pneumonia are sudden onset, rapid rise of temperature (to 103° or 104°), rapid pulse, quickened respiration, great prostration, usually cough and pain, but not always. Vomiting and convulsions may also occur in the beginning.

The physical signs are usually well marked except in the first stages of pneumonia. The crepitant rale is the most significant sign in the first stage. There is dullness on percussion, on palpation increased vocal fremitus, vocal resonance is also increased. Bronchial respiration and fine rales may be heard during same stage of the attack. In some cases physical signs are absent for several days, and these are the puzzling ones. According to Holt it is a mistake to regard these as cases of central pneumonia, as out of several hundred autopsies he has never seen a case of central pneumonia. He regards these as occurring at the apex of the lung where it is covered by the shoulder and on the posterior border of the lung close to the vertebral column. It is possible for pneumonia in these two regions not to be detected by physical signs.

The diagnosis of lobar-pneumonia is, as a rule, very easy and if we carefully consider the symptoms and physical signs, together with the history we should seldom fail to detect it.

We should always be on the lookout for complications in this form of pneumonia. Pleurisy with effusion is very common, and pericarditis when the pneumonia is on the left side is not very rare.

The prognosis of lobar-pneumonia in children is very good except in cases previously weak and debilitated. A persistent high temperature is grave, and convulsions late in the disease are also a serious sign.

As lobar-pneumonia is a self limited disease of short duration, many cases require almost no treatment except careful nursing and judicious feed

ing. Many cases especially in older children, are very mild as indicated by their temperature and in these cases an expectant plan of treatment is usually recommended, but it is perhaps better to give some form of stimulation from the beginning in every case. Strychnia is the drug to use. If any other stimulant is needed later on, brandy or ammonia may be given. If the temperature continues above 104.5° or 105° for any length of time, we should use judicious means to lower it. In selected cases when plenty of stimulation is being given it will do no harm to give one or two doses of phenacetin, especially if there are many troublesome nervous symptoms also present, but the temperature in most cases can best be reduced by hot mustard baths and hot packs.

The heart often shows great weakness and should receive special attention. Besides strychnia and whiskey or brandy we may use sparteine for the heart, but we should be careful how we use digitalis as it is a dangerous drug in pneumonia, and has probably injured more cases than it has ever benefitted. If used here it should be given always in connection with nitroglycerine.

If the cough is very troublesome moist inhalations may be used with some benefit. Codea in small doses occasionally will give the patient rest and sleep.

Expectorants seem to do little good and the patient is usually more comfortable if they are not given at all.

The child should be closely watched when the crisis is expected, and the mother or nurse warned what to do in case the physician is not present. The temperature may drop to normal or even lower, and if prompt measures are not taken the child may die in collapse; stimulants should be freely given and hot bottles applied if necessary. As soon as the crisis is passed resolution begins at once and the child goes on to a rapid recovery unless there are some troublesome complications present.

Announcement.

Within the forty-two or more pages of the reading matter in the JOURNAL, not a line of advertising will be admitted; no reading notes; no advertising inserts. Much matter of this character reaches us that is really interesting and instructive, but in justice to subscribers and advertisers we must place it all where it properly belongs, viz. : in columns set apart for it.

With our January issue our JOURNAL will almost double in size, will be issued once monthly at \$1.00 per year. We want every doctor in the Carolinas to subscribe.

North Carolina Medical Journal.

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Editorial.

ANNOUNCEMENT FOR 1900.

THE JOURNAL enters upon the new year with very flattering prospects of a successful career. During the past twelve months the subscription list has doubled, the amount of reading matter in each issue likewise increased, and the general appearance of the JOURNAL, if we may judge from the kind expressions of opinion of our readers, has been much improved. We are therefore encouraged to persevere in the effort to elevate still higher the standard, because we believe that only a journal of this character will merit the loyalty of the medical profession, and in trying to represent the physicians, especially of this section, it is also hoped that the JOURNAL may contribute, in however small a way, to the unification of medical interests throughout the country, a consummation which is to be devoutly wished.

As a result of one year's experience in publishing the NORTH CAROLINA MEDICAL JOURNAL, several changes in its publication have presented themselves, in so forcible a light, to be for the advantage of all interests concerned, that after mature deliberation and consultation with prominent professional friends, the present management has decided upon the following plans, to take effect January, 1900:

The first relates to name, and for reason which space will not permit us to give here, the next issue of the JOURNAL will be entitled THE CAROLINA MEDICAL JOURNAL instead of THE NORTH CAROLINA MEDICAL JOURNAL as hitherto.

The second change is in the matter of issue. Some years ago THE NORTH CAROLINA MEDICAL JOURNAL, then published at Wilmington, N.

C., no doubt for good and efficient reasons at that time, was changed from a monthly into a semi-monthly. While this frequency of issue presents some advantages, they are overbalanced in other directions by drawbacks that, in this section at least, do not obtain in an issue of once a month. An issue of twelve numbers a year will result in an increase in the size of the single copies to something like 100 per cent., and will enable the publishers of the JOURNAL to give subscribers the benefit of a lessened expense account by reducing the subscription price to one dollar per annum, payable in advance, a change to which we feel sure our readers will offer no serious objection.

We desire to express a grateful appreciation of the generous support accorded the JOURNAL throughout the past year by the profession, and to hope that our readers may individually realize during the new year that prosperity which this season naturally suggests.

TREATMENT OF PNEUMONIA.

Despite the many advancements in our knowledge of the etiology, pathology and natural history of pneumonia, when it comes to a consideration of the question of treatment, it becomes painfully apparent that in this particular disease curative measures have not kept pace with increased knowledge. It has indeed been claimed that the results of modern treatment show but little if any improvement over the older therapeutic measures. Our statistics assuredly seem to lend countenance to such pessimistic views, and a recent writer on the subject has made the assertion that in the temperate zones, pneumonia is chargeable with more deaths than any other single disease—pulmonary tuberculosis excepted. Dr. Edward F. Wells has compiled a table containing 358,435 cases with 77,991 deaths, a mortality rate of 21.7 per cent., nor does he consider this an over-estimate of the ordinary death rate from pneumonia. Its prevalence among elderly people is so great that Osler has declared it to be the natural end of the old in this country. Among this latter class the mortality is variously estimated from 70 to 80 per cent., while 60 per cent. is supposed to represent a conservative figure. In the face of such fatality Prof. Osler's oft quoted saying does not seem exaggerated, and is a most depressing commentary upon the inadequacy of our means for combating this enemy to "green old age."

Professional opinion as to treatment is as varied as might be expected in a malady, the natural course of which seems so slightly influenced by therapeutic measures. The advocates of blood-letting, veratrum, digitatis, cold pack and strychnine have all claimed favorable results as well as scientific reasons, based upon physiological action and pathological conditions, for the employment of their favorite remedy. While doubtless most of these and some other drugs serve a highly useful purpose under given circumstances, their number is sufficient proof that none are to be regarded as possessing paramount curative powers in even a majority of cases. The ability to discriminate, and the hygienic and prophylactic means suggested

by a knowledge of the natural course of the disease are of more value than a blind adherence to any one plan of treatment.

With the discovery of the diplococcus and its recognition as the cause of pneumonia, high hopes were entertained of the serum treatment, and while as yet it may be too early to formulate a decided opinion as to its value, we are again confronted by that *bate noir* of all the serum treatment, viz. "mixed inflection;" for as Anders' well remarks, we can not hope to cure a streptococcic pneumonia with an anti-pneumococcic serum, and the same is true in cases of the mixed type.

THE PNEUMOCOCCUS OF FRANKEL.

This organism, now regarded as the essential causative factor in the production of pneumonia, presents many peculiarities of interest to the bacteriologist. The following is an instructive and concise description of the diplococcus, together with a brief statement of the undecided questions connected with the role it plays in pneumonia, by Dr. Wells in a paper read before the American Medical Association :

"The pneumococcus is rounded or tapered at both ends and has a mucinous capsule. It is found single, often paired, or frequently in groups, enclosed in the same or in adhering capsules. It colors readily with aniline dyes and is not affected by the Gram method. It is cultivated with difficulty, and much care is required to obtain pure growth. It does not lend itself kindly to saprophytic existence, and has not yet been found in the air. It will not grow in acid media and cultures produce an albuminose and an acid. Its capsule is lost by cultivation. It varies in size, appearance and virility. Its virulence diminishes as convalescence advances. It loses virulence by cultivation, but this may be restored by passage through the rabbit. An organism which can not now be differentiated from the pneumococcus is present in the mouth and upper air-passages in a large portion of healthy persons. Diplococci from the mouth are less active and can not be made as virulent as those from pneumonic sputum or exudate. To round out our knowledge of the pneumococcus we need definite answers to the following questions: Is the diplococcus found so frequently in health in the mouth and upper air-passages identical with that found in the pneumonic exudate and sputum? If so, how does the organism obtain entrance into the mouth and nostrils? Has it a wide-spread saprophytic existence, finding its way into the body with the inspired air, or does it pass from one person to another only by direct conveyance of the moist or dried secretions? If it is not identical, whence comes the pneumococcus, and what is its life history outside the body? What measures can be instituted to destroy the germ outside the body, prevent its entrance into the system, or render it innocuous after entrance? Any intelligent prophylaxis will depend upon full and complete answers to these questions."

Medical News and Items.

Russia has three thousand surgeons in her army.

It is feared that the famine in India will affect a larger area than in 1896.

Small Pox prevails to an uncomfortable extent in many places in our state.

Mr. William Waldorf Astor has contributed \$25,000 to the British Red Cross Committee for use in the Transvaal war.

The Johns Hopkins University will send an exhibit to the Paris Exposition.

The Medical Profession will be gratified at the appointment by the President of General Wood, (M. D.), to be military governor of Cuba.

The late Cornelius Vanderbilt left by will \$50,000 to St. Luke's Hospital in New York City; \$10,000 to Newport Hospital, R. I., and \$100,000 to Yale.

Osteopathy has just received a set back in Georgia. A bill had passed both houses of the General Assembly, providing for the practice in Georgia of osteopathy, but Governor Chandler, after conference with many physicians, vetoed the bill.

The Journal of the American Medical Association reports that two men have been committed to prison for selling oleomargarin as butter. One has been sentenced to pay a fine of \$1500 and six months imprisonment; the other has been fined \$500 and given four months in jail.

The Law and Equity Court of Richmond, Va., in the case of Dr. Susan A. Roope vs. the J. L. Hill Publishing Co., for damages resulting from the publication of her name in the directory as a "midwife," a title which she claimed was not complimentary, has decided in favor of the defendant on the grounds that such publication was not libelous.

Small Pox has been prevalent in Dixon, Ill., for the past six weeks, but owing to the mildness of the disease it was not recognized by the local profession. There had been about one hundred cases which were regarded as chicken-pox until the correct diagnosis was made by the inspector of the State Board of Health. The diagnosis of small pox has been confirmed by Dr. J. A. Egan, secretary of the Board, and Dr. Heman Spalding, inspector of the Chicago Health Department.

Punished for Substitution—A decision of considerable importance was made by Judge Kohlsaat in the United States Circuit Court in Chicago. In a bill for an injunction Fairchild Brothers & Foster of New York had charged Edward Otto, a Chicago druggist, with substituting a spurious and inferior preparation for "Fairchild's Essence of Pepsine" in several cases, where the latter was expressly called for in physicians' prescriptions. The case was hotly contested and hundreds of pages of depositions were taken in New York and Chicago. Judge Kohlsaat's decree sustains the charges made, perpetually enjoins Otto from ever repeating the offense and taxes him with the costs, amounting to about \$500. This is said to be the first contested case in the United States in which the principle of protection to trade-marks and trade names was extended so as to apply to what is techni-

cally known in the drug business as "substitution." Judge Kohlsaat's decision will probably protect manufacturing chemists, physicians and the general public, all of whom have in the past suffered from these fraudulent practices of a certain class of druggists.

Marriage.

Dr. Thomas Reddick and Miss Lucy G. Cowper were married on Dec. 14th, 1899, at Gatesville, N. C. Dr. Reddick is connected with the *Southern Medical Journal*, and is a clever gentleman and successful physician.

Death.

Dr. J. B. Triplett, of Elk Bark, N. C., died very suddenly of heart disease in October. The doctor was a man of good attainments and enjoyed a very extensive practice. A widow and two sons and many relatives and friends mourn his untimely decease.

Society Meetings.

The Seaboard Medical Association of Virginia and North Carolina will hold its third annual meeting at Newport News, Va., on Thursday, January 11th. A large attendance is anticipated, and many valuable papers have been promised.

The second annual meeting of the Tri-State Medical Association of Virginia and the Carolinas will be held in Charleston, S. C., on Tuesday, February 20th, 1900.

Epitome of Medical Progress.

The Treatment of Pneumonia with Anti-Pneumonic Serum.—Antonia Fanoni, M. D., (*New York Medical Journal*, 1899, Vol. LXX, No. 9.) reports six cases of pneumonia treated by this method.

The serum is prepared in two strengths—No. 1 is mild and No. 2 being a more concentrated and stronger preparation.

The first is used in the milder cases and early in the disease, while the second is reserved for the more severe types of pneumonia.

The author suggests along the posterior axillary line, as being the best site for injecting. The injection is given twice a day, say at 8 or 9 a. m., and again between 8 and 10 p. m.

The injections should be used regularly while the fever exceeds 104° F. If the fever subsides and there are no asthenic symptoms, we may suspend the injections; but if the temperature rises again, we have to resume the injections.

The usual dose is ten cubic centimetres at each injection. The syringe used may be a large hypodermic, and it is well to wash it in a four-per cent. solution of carbolic acid before using.

The skin must also be disinfected by means of a solution of bichlorid of mercury.

It is best to make the first injection in the posterior axillary line, between the eleventh and twelfth ribs, so as to leave a sufficient space for later injections.

When the serum is used all other medication is to be omitted; employing the usual hygienic measures, and the patient may be given some alcohol and water. The daily diet may comprise a litre and a half or two litres of milk and one or two cups of broth, with the yolk of an egg.

Of the six cases reported by the author recovery resulted in all but one case. The resolution in these cases was as follows: First case, eighth day, by lysis; second case, sixth day, by lysis; third case, tenth day, by lysis; fourth case, seventh day, by lysis; fifth case, seventh day, by lysis; sixth case, sixth day, by lysis.

The author draws the following conclusions, from his own observations, and the list of successful cases previously reported:

1. That Pane's antipneumonic serum is the rational remedy in pneumonia, as it constitutes the specific treatment, the same as Behring's anti-toxin does in diphtheria.

2. That injections with this serum are not painful, and do not produce any general or local reaction.

3. That serum over five months old is no longer active and produces; no results, although it does no harm; and after it is four months old it begins to lose strength, and the amount given after this time should be increased in proportion as the date of the preparation of the remedy is removed from the date of administering up to the fifth month.

4. That the serum will not do harm, even if given in doses of one hundred to one hundred and fifty cubic centimeters in twenty four hours.

5. That the serum in all the cases under his observation had shown wonderful efficacy, not only in producing rapid improvement of the general condition, but in hastening resolution in case it is given early in the disease.

6. That in any lobar pneumonia, especially if the prognosis is grave, it is the duty of the physician to use this serum, and if he fails to do so there is no excuse for such an act, except ignorance of the work that has been done in the field of serum therapy of pneumonia.

R. L. F.

Acute Bronchitis.—A symptom; the treatment from an etiological stand point.

Dr. Reilly (Medical Record 1899, Vol. 56 No. 57) says, the term "bronchitis" as applied to catarrhal conditions of the bronchial mucous membrane dates from the writings of Barnham and Folk in the early part of the century. Gradually this symptom came to be regarded as a disease entity. Later views, in the light of clearer pathological findings, lead us to regard it as only one manifestation of a constitutional disorder.

We know that poisonous matters are constantly excreted by the mucous

membranes of the respiratory tract, as well as by the skin and kidneys, and that in the perfect performance of function there must exist a proper balance. If, however, the amount of poisonous substances to be eliminated be greater than usual, and the skin and kidneys cannot excrete it, there will be a deposition of the same at the point of least resistance, and, consequently, irritation of the structure results. That these poisons should be deposited in the mucous membrane of the respiratory tract sooner than elsewhere is very evident when we consider that here the blood-vessels have less covering, the lymph channels are more superficial, and, in the case of some parts of the mucous membrane of the respiratory tract, the temperature of the blood is lower than in the more deeply placed structures.

A preliminary throat irritation almost invariably precedes by several hours an attack of acute rheumatism, and we see the red throat and larynx in scarlet fever twenty-four hours before the other objective symptoms manifest themselves.

In like manner we shall invariably find an irritation of these membranes slightly earlier than the other objective manifestations in all acute infections. Often when the toxemia is slight the eruption on the mucous membrane will be the only symptom.

One of the most brilliant results of such a conception of etiological factors is to be seen in the results of our treatment of many cases of tonsillitis and pharygitis. Where teaspoonfuls of tincture of the chloride of iron and chlorate of potash were given; now all is changed. Most cases respond readily to the anti-rheumatic treatment, and the condition lasts half as long.

It is the opinion of the writer that the commonest cause of this symptom in adults is the so called uric or lithic acid poison. This term is intended to embrace the large number of complex substances, more or less closely related to uric acid, that have a similar origin but differ slightly in chemical constitution.

The great value of sodium bicarbonate in the treatment of catarrhal conditions of the upper air tract, has been demonstrated by many competent observers.

In considering acute bronchitis in the light of a toxæmic manifestation we find a ready explanation for the undoubted value of profuse diuresis and diaphoresis in the treatment of this condition. By rapidly eliminating the toxins in this manner many attacks are cut short.

As far as rational therapeutics can carry us, the indications for treatment point 1st, to the repeated cleansing of the intestinal tract; 2nd, to aiding the skin and kidneys in the elimination of toxic products by repeated diaphoresis and the ingestion of large quantities of water; 3rd, to neutralizing or hastening the elimination of the so-called lithic acid poison.

The author's summary: 1st, acute bronchitis is a symptom; 2nd, the diseased condition of which it is a symptom is a toxæmia, which may be due (a) to the so-called uric-acid poison, (b) to auto-intoxication from the intestinal canal; 3rd, the treatment with nauseous mixtures, under the name

of expectorants, is illogical, and is opposed to modern therapeutics; 4th, in every case we should endeavor to discover the etiological factor, and treat the same.

R. L. F.

New Views in Pneumonia.—In Pediatrics of a few weeks ago were made some remarks upon the bacterial origin of pneumonia, but since that article was written an altogether new theory has been promulgated as to its cause. Dr. Andrew A. Smith has contributed an article on croupous pneumonia to the sixteenth volume of the Twentieth Century Practice of Medicine just published, in which he states, as his opinion, that the disease is not an inflammation of the lung. He takes this ground for the reason that it does not affect the structure of the organ. He contends that it is a process of germ culture, in which the pneumococcus grows in a culture medium supplied by the functional capillaries of the lung. According to Dr. Smith, the cause of pneumonia lies in the double circulation in the lungs. The gist of the argument, as stated in Twentieth Century Practice of Medicine, is that from its peculiar construction the lung is enabled to afford a field for bacterial culture and to supply a culture medium, and this without calling upon its own nutritive resources or directly compromising its own tissues. It is a fact that in the lung are empty spaces, accessible to bacteria and separated from an unlimited blood supply by only the thinnest and most permeable walls that make the phenomena of pneumonia possible. It is the further fact that the framework between these spaces has its own separate blood supply, apart from the vessels involved in the pneumonic process that prevents a sweeping destruction of the lung tissue. In no other organ of the body is such a mingling of structural health and diseased action conceivable, for in no other organ is the blood supply for nutrition and function separately provided for (except in the heart, where a somewhat analogous condition is met with). In speaking of the phenomena of crisis, Professor Smith gives the following new deductions: That normally there is carried into the functional capillaries a varying amount of sodium bicarbonate, held in solution in the blood. It is requisite that the carbon dioxide contained in the bicarbonate should be set free in the lungs, in order that it may escape with the expired air. Nature provides for this by the production of a special organic acid, known as pneumic acid. This combines with the sodium, and the carbon dioxide thus liberated passes into the alveoli. But when the functional circulation ceases, the sodium bicarbonate is no longer at hand to neutralize the pneumic acid, which continues to be produced as a part of the nutritive process. The parenchyma of the lung therefore becomes saturated with a free acid, and the slightest trace of acid in the medium is, as has been proved from laboratory experiments, fatal to the propagation of the pneumococcus.

Three Points in the Treatment of Pneumonia in Infants.—In a paper by Dr. W. P. Northrup, of New York, published in *Medical Age*, the author emphasizes three points as follows:

First, hygienic conditions: Fresh air, a large room, changing the patient from one well-aired and freshened room to another in like condition. The temperature of the room should vary inversely as the temperature of the patient—65 to 68 degrees Fahrenheit, when the patient's temperature is high, and higher, say 70 degrees Fahrenheit, when the patient's temperature reaches normal. An infant with high temperature and dry skin is in no danger of taking cold. A window should admit fresh air continually. However damp or dry the outer air, the warm walls and furniture of a heated house will temper it to the needs of the child. Nothing so refreshes an infant, nothing is more essential to the condition of the blood, nothing acts more favorably as a heart tonic, than cool, fresh air. On the other hand the opposite conditions are these: The infant's crib is closely tented about with blankets; the windows are covered with sheets to keep off draughts; added to this are often in the room numerous relatives and large gas-jets consuming the oxygen. If a well lady faints from the exhausted air of a heated and crowded room, may not the overburdened heart of a pneumonia patient sometimes be seriously embarrassed in its struggle under similar circumstances? No fever patient ever caught cold from air coming in contact only with the oval of the face. It is not the air going in the nose and mouth that gives cold.

Secondly, the care of the digestion: Pneumonia disturbs the infant's digestion; flatulence embarrasses the action of the diaphragm; pressure upward against the heart may determine the unfavorable outcome of the disease. One might almost formulate the advice, "To cure pneumonia, treat the digestion."

Thirdly, the use of water: Bathing, to save nerve exhaustion, or, to put it in another way, to stimulate the nerve centers. A physician once suffered great remorse because a child developed pneumonia after he had treated it several days for typhoid fever, using baths, carefully regulated feedings, etc. This error in diagnosis probably gave the child its best chance of recovery. He often thinks it would be well to make a diagnosis of fever and not of pneumonia, so that friends would allow one to treat the patient rationally.

Water should be freely administered internally as well. The refreshing cold water on the lips, in the mouth and stomach of a fever patient need only be suggested. Again, he thinks a diagnosis of fever instead of pneumonia might permit of the more general use of cold water externally. He condemns poultices for reasons that they impede action of thorax, and they overheat the fevered patient. If used at all they should be light and thin, and combined with mustard, and used for pain only. The antipyretics, such as the coal tar products, are mentioned by him only to be absolutely condemned. Strychnia and such other heart stimulants, digitalis and alcohol are stongly condemned.

Notes on Manilla. (Dr. Barker, *Maryland Medical Journal*, November 25th, 1899), concludes his interesting paper by referring briefly to a large outbreak of beri beri among a number of Filipino prisoners, which he and

his colleagues had an opportunity of studying. No less than two hundred of the one thousand prisoners confined in the old Spanish prison at Cavite developed the disease. The cases of beri beri are divided into three main types: (1) the œdematous form, (2) the paralytic form, and (3) the mixed form. In nearly all cases circulatory disturbances are marked early in the disease.

There is palpitation of the heart and throbbing of the peripheral vessels. Physical examination shows enlargement of the heart, especially of the right side. This enlargement is due chiefly to dilatation, and is accompanied with very marked cardiac distress. Digestion disturbances are also common at the beginning. There is anorexia, nausea and frequently vomiting. In the œdematous form the legs begin to swell and the œdema gradually extends upward until in some cases the whole body is involved. In very severe cases there is hydro-peritoneum, hydrothorax and hydro-pericardium. Many of the latter cases terminate fatally. In the paralytic form without œdema disturbances of locomotion come on gradually. The symptoms resemble closely those of peripheral neuritis, but differ somewhat from the latter disease as ordinarily met with. Many observers believe that no actual neuritis exists, but only a degenerative process. Pain is usually present in some part of the body. Pressure on the muscles of the calf usually causes excruciating pain. Sensation may or may not be considerably involved. The reflexes also vary with the distribution of the neural lesions. After a time muscular atrophy sets in, and these patients may become much emaciated. In the so called mixed form œdema and paralysis are associated. The clinical and epidemiological history of the disease speaks strongly in favor of an infectious nature. The symptoms are those of a severe intoxication.

Cultures made from the blood on bloodagar from a large number of cases of beri beri yielded negative results.

Careful autopsies were conducted on those who died in the hospitals, and all the pathological material collected was brought back to this country. It is to be thoroughly studied and the results published later.

R. L. F.

Value of the Tuberculin Test in the Diagnosis of Tuberculosis.—Dr. Edward Otis, (*Journal American Medical Association* 1899, Vol. XXXIII. No 18), in advocating this method of diagnosis, says (1) The tuberculin test indicates early tuberculosis, by a general reaction before it can be detected by other methods, except the X-ray, in the large majority of cases, with a dose of from 5 to 10 Mg. of Kochs' original tuberculin.

(2) No injurious results occur from the use of tuberculin in these doses.
(3) Proved tuberculosis in a more or less advanced stage may fail to give a general reaction from doses of from 10 to 12 Mg.

(4) Syphilis gives a reaction in an undetermined proportion of cases.
(5) There is a dose, undetermined, at which a non-tubercular person may react or simulate a reaction.

(6) The reaction may be deferred from six to twenty-four hours.

As rules to be observed in making the test:

(1) Always use the same tuberculin and of a standard strength.

(2) Use aseptic precautions in giving the injection.

(3) Make the injection deep into the muscles of the back, arm, or leg.

(4) Keep a two, three, or four-hourly chart of the temperature if possible, beginning twenty-four hours before the injection.

(5) Allow several days to elapse before repeating the test.

(6) In early cases depend on the general reaction; in late cases, if the general reaction fails, carefully look for the local.
R. L. F.

A New Method of Staining Malarial Parasites. Drs. Futches and Lozear (*Johns Hopkins Hospital Bulletin*, X. No. 97. *Post Graduate*, Volume XIV. No. 9.

The authors claim for this a very quick process and very serviceable in cases where one is called out to see a suspicious case and has not a microscope with which to examine the fresh blood. "Make the ordinary smear preparation, fix in $\frac{1}{4}$ per cent. formalin in 95 per cent. alcohol for one minute, wash in water, thoroughly dry. It is important that the formalin solution should be made up fresh each time it is used. The stain consists of a saturated solution of thionin in 50 per cent. alcohol, of which 20 cc. are added to 100 cc. of a 2 per cent. solution of carbolic acid. Only ten to fifteen seconds are required for staining. It is perhaps better to keep the stain for some time before using, as it improves with age. Thionin phenate is formed, which is believed to be the active staining agent. After staining, wash off the excess of stain, blot, mount in balsam and the specimen is ready to be examined. The whole time consumed is not more than two minutes.

The malarial parasites come out distinctly as reddish-violet bodies with this stain, and it is especially serviceable in staining the ring-shaped bodies of the æstivo-autumnal infection. The parasites retain the color much better than they do when stained with methylene-blue.

The authors also used the thionin to try and bring out the flagellated processes in the æstivo-autumnal infection. Probably one of the most convenient methods for obtaining permanent preparations of the flagella is that described by Sakharon, in which an ordinary specimen is made on the slide, and at the same time several specimens of blood are taken on cover-slips, leaving the latter in contact with each other in a moist chamber and watching the ordinary preparation under the microscope until flagellation begins, when the cover-slips in the moist chamber are taken out and drawn apart and dried. One will then most likely catch the organisms in the flagellating stage.

The authors have fixed some of these by heat and then stained with thionin, and have obtained some good specimens, showing the flagellate processes coming off from the body of the parasite.

This method of fixing and staining is not to supersede the examination of the specimen of fresh blood, always the most satisfactory method, but only when staining is the only resource and rapid results are desired.

R. L. F.

Bulletin of Mt. Hope Retreat.—We have on our desk, the "Bulletin of the Laboratory of Mount Hope Retreat," lately issued. It sets forth some very interesting work of Dr. Richardson, Pathologist to the Retreat, the results of which are included in an admirable paper, entitled, "The Secretions in the Insanities," and in another, "Indol, its Clinical Significance, and its Estimation." The former suggests that the certain cause insanities resides in some underlying condition of nutrition or intoxication, and exhibits analysis of the stomachal contents, blood, urine, and feces, which strongly sustain this suggestion. The latter paper is an elaboration of this idea with reference to Indol, and demonstrates by a number of analyses (1st) The presence of Indol in the urine, (in varying excessive amounts,) in most forms of insanity, in epilepsy, albuminuria, most diseases of the digestive tract, etc., (2nd) that Indol is the product of bacterial action on proteid, that it is produced almost entirely in the large intestine, that the three

principally active and best known bacteria are, *B. Coli Communis*, *B. Proteus Vulgaris*, and *B. Cholera Asiatica*. (3rd). Methods of making analyses.

The Bulletin contains a paper by Dr. Chas. G. Hill, Physician-in-Chief to the Retreat, "The Pathology of Epilepsy." It is a masterly recount of the recent pathologic researches and findings in this intractable affliction, and gives an encouraging report of the use of "Suprarenal Extract" in epilepsy. The formula of the dose given t. i. d. is

R Sol. Suprarenal* ʒi
 Calcium Chloride gr ii
 Sodium Bromide gr v

*ʒi of solution equals gr i Armour's Powdered Extract.

The author hopes soon to report some cures.

The Cancer Parasite.—Dr. Curtis, of Lille (*La Presse Medicale*, 1899, No. 20), reports totally negative results in his search for a cancer parasite. His deductions are drawn from a series of experiments now in progress for over four years. He calls particular attention to the fact that tissues derived from superficial epitheliomata are not the best to use in experimental work, since they are so liable to be contaminated with various outside organisms. He used carcinomata of the breast and testicle. In a carefully conducted series of experiments with eighteen of such cases, he was unable to obtain any parasites that would grow on any media, and was unable to produce any contagion in other animals. The author believes that the positive results obtained by other observers are due to defective technique.—*Medical Record*.

Tetanus Following Induced Abortion.—Turenne, of Montevideo (*Ann. de Gynecol*, June, 1899) relates the case of a graduate midwife who complained of a difficulty in opening her mouth following a slight uterine hemorrhage. While the picture of tetanus soon declared itself, search for a wound was fruitless. The patient confessed, however, that believing herself one month pregnant, she had attempted an abortion, using for this purpose an unsterilized intra-uterine injection. The catheter employed was also used without any antiseptic precautions. The patient died after the customary evolution of the disease. There was at that particular time no antitoxin in Montevideo.

While this complication of induced abortion is extremely rare, it is interesting to know that the ancients were not unacquainted with it (Archigenies). Vinay, who wrote in 1891, was able to collect notes of 108 cases of puerperal tetanus from medical literature, and of this material 47 cases were connected with the act of abortion, interference during the earliest months furnishing the largest quota.

In Turenne's case the midwife picked up the sound from a dresser, in which situation it had been accessible to the street-dust. No attempt whatever had been made to clean it before its introduction. Six days elapsed between this exposure and the first indication of trismus. The patient was dead within the ensuing forty-eight hours.—*Obstetrics*.

The Tongue in Influenza.—M. d'Hotel (*Medical Press*, June 14, 1899) draws attention to a character of the tongue constituting a pathognomonic sign of that mysterious affection known as influenza. If the malady is observed during the first few hours of its invasion, the tongue may not present any abnormal feature, but the following day it is invariably covered with a white coating more or less thick towards the center. Later on, according as the affection is of a benign type or becomes complicated or prolonged, the lingual coating is seen to diminish from the point, or on the contrary to remain. This label of influenza is in general the last sign to dis-

appear, and it is not rare to observe three weeks after the debut a remainder of a whitish triangle at the base of the tongue, indicating that the patient not only has been through the malady, but also that he is not yet absolutely free from the morbid condition, although the general state of his function may appear regular—an imprudence on his part, a cold, might provoke broncho-pneumonia, gastro-enteritis, or some other complication. Another characteristic of this lingual deposit is to redden litmus paper when rubbed on it, and not only during the first days of the malady, but as long as there remains a trace of it on the tongue.

This acidity persists as long as there remains any trace of the fur, and is a natural indication of the treatment, which is that of frequently rinsing the mouth with an alkaline solution, such as Vichy water, followed by the internal administration of the same. It is evident that influenza cannot be cured more than typhoid fever, but M. d'Hotel affirms that complications were much rarer where the alkaline treatment was used.—*Medical Age*.

Book Reviews.

Essentials of Physical Diagnosis of the Thorax. By Arthur M. Corwin, A. M. M. D., Instructor of Physical Diagnosis in Rush Medical College; attending physician to the Central Free Dispensary, department of Rhinology, Laryngology and diseases of the chest. Third edition revised and enlarged. W. B. Sanders, Publisher, Philadelphia.

This little volume of 220 pages gives in a systematic manner the gist of physical diagnosis as related to the thorax. The text is well illustrated and the salient features of the various manifestations of diseases of the chest are so arranged as to be readily grasped by the student and afford a quick means of refreshing one's memory upon points of physical diagnosis. Skill in interpreting the signs of thoracic disease is an accomplishment not to be over-rated in medical practice, and will well re-pay any extra effort of study and practice. As a guide to such an end Dr. Corwin's work can be cordially commended.

Essentials of Anatomy, including the Anatomy of the Viscera, arranged in the form of Questions and Answers prepared especially for Students of Medicine. By Charles B. Nancrede, M. D., Professor of Surgery and of Clinical surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised by Fred J. Brockway, M. D., Assistant Demonstrator of Anatomy, Columbia University, New York. Net price, \$1.00. W. B. Sanders, Publisher, Philadelphia.

This is another of the excellent series of Question-Compendis issued by the publishing house of W. B. Saunders. That the profession and students of medicine recognize the worth of these publications is attested by the fact that over 175,000 copies have been sold since the first volume was issued. The present number is well illustrated, with the name printed clear on each particular part.

Scribners Magazine for January, which begins the new volume, also marks the opening of two important serial features for the year.

J. M. Barrie's great novel, "Tommy and Grizel," upon which he has been at work for years begins in this number.

Theodore Roosevelt begins in this number his monograph on "Oliver Cromwell, which is to be a feature of this magazine for six months. The illustrations of the Cromwell serial are elaborate and profuse.

A paper of great significance at the present time it Frederick Palmers View of "White Man and Brown Man in the Phillipines."

A short article by Frederic Irland, called "The Coming of Snow" gives an account of a successful moose hunt in New Brunswick, illustrated.

Coca and Its Therapeutic Application—By Angelo Mariani. With illustrations. Address J. N. Jaros, 52 West 15th St., New York.

This is a handsome cloth bound book, giving much very interesting information in regard to the history of this most important plant, its mode of cultivation, therapeutic properties, and much other valuable knowledge which the scientific physician desires. The illustrations are many and beautiful. This book will be sent complimentary to our readers who will address the publisher as above.

Companion Stories for 1900—The stories published in The Youth's Companion portray the manly and womanly virtues with no sacrifice of interest or vitality, and they appeal to the sympathies of old and young alike. During 1900 *The Companion* will offer special series of stories—among them being stories of Former Political Campaigns and Adventures of Linemen.

Besides these there will be a score of stories for girls by such writers as Sarah Orne Jewett, Mary E. Wilkins, Margaret Deland, Elizabeth Stuart Phelps, Edith Wharton, Kate Chopin and Margaret Sangster. There will be four serial stories—"A Prairie Infanta," by Eva Wilder Brodhead; "Running a Merry-Go-Round," by Charles Adams; "The Schoolhouse Farthest West," by C. A. Stephens; and "Cushing Brothers," by Ray Stannard Baker. In addition there will be two hundred other short stories by the most gifted of American writers of fiction.

All new subscribers will receive *The Companion* for the remaining weeks of 1899 free from the time of subscription, and then for a full year, fifty-two weeks, to January 1, 1901; also the *Companion's* new Calendar for 1900, suitable as an ornament for the prettiest room in the house.

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THE CAROLINA MEDICAL JOURNAL will succeed THE NORTH CAROLINA MEDICAL JOURNAL in January, 1900. It will be about twice the size of this issue, will be a monthly at \$1.00 per year, in advance. Send us \$1.00 and begin the new year right.

Therapeutic Experiences and Suggestions.

The object of this department is to afford the profession an opportunity to discuss, pro and con, the newer therapeutic agents.

The Rational Treatment of Pneumonia.

[ORIGINAL COMMUNICATION.]

BY LUCIAN LOFTON, M. D., Norfolk, Va., President Seaboard Medical Association of Virginia and North Carolina.

A great many of the leading text books will tell you pneumonias run their course uninterrupted by any medical treatment whatsoever. This assertion may bear out the statement of some men, but it will not hold good in forty per cent. of the cases the average practitioner is called upon to treat. In fact I believe a well developed case of pneumonia of whatever description will respond to the latter day method of handling such cases. In times ago the treatment par excellence was either heat or cold locally, together with internal stimulants, and much success followed these methods, but living in this most progressive age no man can fail to find means by which a new regime may be inaugurated and thus reduce his mortuary record. I do not decry the use of heart stimulants in this disease but on the contrary use them whenever necessary; but to rely upon counter irritation and the ice pack solely with a view of bringing your patient to a successful end, is not considering matters seriously enough by any means. It is quite necessary to give these cases all the liquid food the stomach is able to legitimately assimilate, but solid food ingested by pneumonia patients while the attack is at its height is bad practice and should not be countenanced.

I will suggest a treatment which in my hands has given me the best results I have yet seen. It is a preparation known to the profession as "Viskolein" and the formula I have generally used is composed of the following: Sulphocarbolates of Zinc and Soda (CP) a a: two grains Kolein, one and a half grains, Phenol benzoate seven and twentieth hundred grains, Menthol, Thymol, and Eucalyptol, a a: one and one twentieth hundred grains. This is suspended in a sterilized drachm solution of water, and is used only hypodermatically at intervals of from three to six hours. The site of injection depends upon the affected lung area, or may be inserted where the cellular tissue is loose and redundant. The amount to be given depends in a measure upon the severity of the case, age of the patient, and the general physical condition of the sufferer. The average dose is ten minims for an adult in an equal quantity of boiled water, which may be increased to twenty or thirty minims according to indications and results. There is no depressing effect as a rule; in fact none of the cases treated by me have been thus affected. When you do not wish to give this

preparation as indicated, it may be administered in tablet form, and is a most agreeable form to give it. Altogether the hypodermic method gives me better and quicker results. As an antipyretic the tablet acts admirably and may be used every three or four hours to control any febrile disturbance. I fully realize the profession at large is loath to try any of the newer remedies, and prefer to trod "gently in well beaten paths," and while I prefer to listen to pioneer teaching, I think it a grave mistake to cast aside *anything* that gives prospect of advancement in the "healing art". Much to my regret therapeutics have suffered greatly for the want of proper investigation, while surgery has led the van, to the great detriment of its chief ally.

To enumerate the cases of the various pneumonias treated by "Viskolein" in my hands would be to infringe upon the kindness of the editor, and I will, in consequence, describe the results obtained by me in a cursary way. Being hurriedly summoned to the bedside of a patient recently, I found upon examination, a complete occlusion of the left lung, with absolutely no evidence of respiratory action in the affected organ. Pulse 150, temperature 105½ F., clinched jaws, a fixed and set stare of the eyes, a jerky respiration of the right lung averaging from twenty-five to thirty-seven to the minute. The patient's extremities were cold and clammy, while the skin gave no response to the insertion of a pin. Cyanosis was rapidly coming on, and I concluded I had a desperate case with which to deal. After taking a general survey of the situation, I concluded to tell the parents the chances were very slim for a recovery, at which time they said another physician who had been called in, prior to my arrival, stated the patient would die in two or three hours and he was surprised they should send for him. He could do nothing. An undertaker was what they needed. The parents beseeched me to do "anything" while life lasted. I agreed, but fearing the patient might succumb at any minute, I said, "if the patient cannot swallow we will be compelled to give the medicine by the skin," to which they readily assented. The first injection was made at 4 p. m., of 10 minims of fluid "Viskolein" with an equal portion of sterilized water. At 9 p. m., the patient began to move hands and feet, and could swallow some water, at which time I instructed the mother to give a tablet comprising tincture digitalis, three minims, tincture strophantus, two minims, every three hours dissolved in a teaspoonful of water. I predicted a change for the better or worse between the hours of three and four the following morning, and precisely at three a. m., a decided change for the better was noted. I saw the change as I entered next morning. I repeated the identical dose but added brandy, one half ounce well diluted, every two hours. In exactly thirty-six hours the fever had abated, the extremities had become warm, (which no doubt had been benefitted by hot water bags), the pulse was 100, the respiration of the right lung was from twenty to twenty-five per minute, and strangely enough the patient began to call for food. Altogether I gave four injections ranging from ten to fifteen minims. I think this a remarkable result in the face of all the

facts, considering in one week's time the patient was sitting up, laughing and talking, the affected lung having practically fully cleared and no consolidation of importance could be noted. This is decidedly the worse case of pneumonia I ever treated with "Viskolein", but the milder forms have responded as beautifully. I cannot too highly commend the preparation to my professional colleagues. Independent of all other remedies save, heart stimulants and liquid foods I firmly believe this compound, especially the fluid form, will neutralize the toxin which results as the presence of the diplococcus pneumoniae.

"Visoklein" should be tried in all cases of pneumonia, likewise any septic systemic poisoning irrespective of origin. It is indeed a powerful toxin neutralizer.

Synergetic Medication—"Antikamnia Laxative Tablets" or "Antikamnia & Quinine Laxative Tablets,"—as the condition presented may require—will compel the excretory organs to perform their natural functions naturally, without griping or stomach sickness, and they are, therefore, the proper remedies for constipation, headaches, chills and fever, malaria, la grippe and allied conditions, coryza, colds, congestions and the general disturbances arising from suppressed action of the various functions of secretion and excretion.

These two new combinations are particularly useful in that torpid condition of the bodily functions, produced by the retention of poisonous ptomaines, scientifically known as autotoxia.

We would especially call attention to the wide use of "Antikamnia & Quinine Laxative Tablets" in chronic or semi-chronic diseases which begin with a severe "cold." Their power to relieve pain, reduce fever, tone up the system, and restore natural activity to the bowels, will, we feel sure, make these tablets unusually valuable.

We believe the profession will at once appreciate the uniqueness and usefulness of these combinations—*The Atlanta Journal-Record of Medicine*.

The Catarrhal Diathesis—In catarrhal affections of the various mucous membranes, particularly of the respiratory tract, there exists not only a relaxed atonic condition of these structures but an underlying constitutional state of malnutrition. All authorities agree that in order to eradicate the local pathologic conditions, treatment by appropriate systemic remedies is indispensable; the patient's nutrition must be fostered and restored so that a degree of constitutional vigor is attained which antagonizes the catarrhal processes. Gray's Glycerine Tonic Comp. is the remedy par excellence in these cases because it has a two-fold action. Primarily and chiefly it overcomes malnutrition; it re-establishes normal nutrition by eradicating the ever-present atonic condition of the digestive organs, thus assuring the maintenance of normal digestion and assimilation of food; restoration of tone and nervous force to the entire system, and incidentally to the mucous membrane, is a natural sequence. Gray's Glycerine Tonic Comp. has, moreover, a direct local antiphlogistic and tonic influence upon the disordered circulation of the mucous membranes; it relieves engorgement and restores tone to the relaxed atonic blood vessels. This remedy will prove effective in obstinate and recurrent catarrhal affections of the respiratory and gastro-intestinal tracts which have resisted all other treatment.

THE PURDUE FREDERICK CO., Sole Proprietors,
No. 15 Murray Street, New York.

E. N. Campbell, M. D., Good Hope, Ill., says: I have used Aletris Cordial in threatened miscarriage and find it one of the finest and most efficient preparations that it has been my privilege to prescribe. Aletris Cordial should be used more than it is, although it is largely prescribed, yet like its twin sister Celerina, it is not prescribed often enough to prove its efficiency. Most all cases that these preparations are used in are of a chronic type, and those that require patience to relieve; hence, if these two remedies are taken regularly and persistently, according to the case, they will satisfy all concerned.

A Remedy Combining the Effects of Phenacetin and Salicylic Acid—In the case of the synthetic remedies the chemical composition of a drug sometimes throws much light upon its medicinal properties. This is well shown in the case of salophen, which represents a common chemical combination of salicylic acid with acetylparaamidophenol. In this preparation we have associated the effect of salicylic acid with that of phenacetin. As pointed out by Dr. Hill in a recent article (*Denver Medical Times*) nearly all the newer antipyretics owe their fever reducing effects either to paraamidophenol or to some of its oxidation derivatives. For this reason the range of utility of salophen in medical practice has been constantly enlarging, and it is now employed not only in the treatment of rheumatic affections, but also as a general antipyretic and antineuralgic. Dr. Hill states that a careful and impartial summary of all the clinical evidence proves indisputably that up to the present this remedy is our best, safest and most eligible antirheumatic, and that it is also an efficient antineuralgic and intestinal antiseptic. In his own opinion, based upon the experience of several hundred cases, salophen is the culmination up to date for definite therapeutic purpose of the aromatic series of which phenol, salicin, salol and salicylic acid are the crude prototypes.

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Highest Award—It is especially gratifying to the many physicians who prescribe Warner's remedies to learn that at the National Export Exposition recently held in Philadelphia the Highest Award consisting of Silver Medal, and Diploma was given W. R. Warner & Co. for the excellence and purity of their pharmaceuticals.

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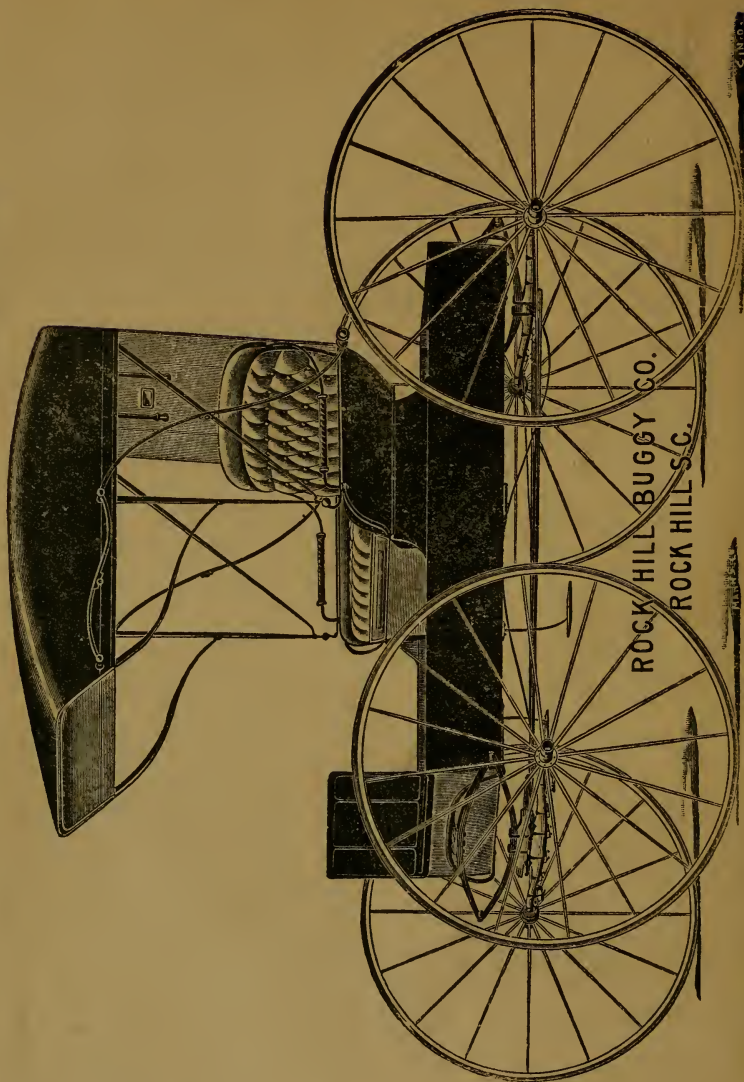
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